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World Agriculture

Outlook and Situation Report

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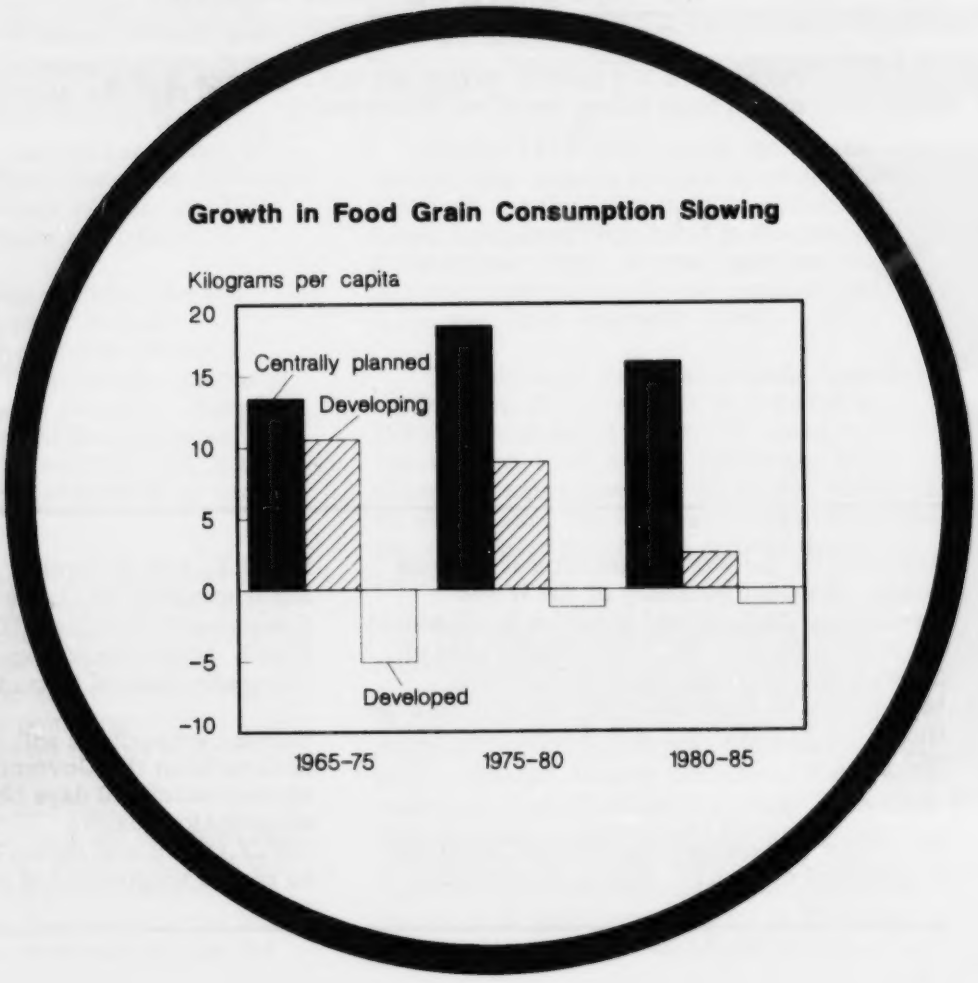

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Note: Tons are metric, dollars are U.S., and rice is on a milled basis unless specified otherwise.

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SUMMARY

Total world food production rose again in 1985, exceeding 1984's record. Over the past 10 years, food production has generally increased faster than population. Notable exceptions include Sub-Saharan Africa. Per capita food production has also gained over the past decade, supported by large increases in China the past 4 years. Per capita output excluding China, however, declined 0.2 percent annually. In the past decade, per capita food production declined in half of the 111 countries reporting, including 29 in Africa.

The composition of food production around the world has been changing over the past 35 years. Cereals, oilseeds, and meats have increased significantly, and sugar slightly, while root crops, pluses, and milk declined. In the United States, cereals and oilseeds have become a bigger portion of total food production, while milk and eggs have accounted for less. Asia reduced its proportion of cereals and increased that of meats, primarily chicken. European countries have increased their share of meat products and cut the share of roots and tubers.

Over the last 3 years, China and the United States led the world in food production. However, China has about 22 percent of the world's population, compared with the United States' 5 percent. Therefore, even though the United States produces only about 15 percent of the world's food, it is the leading food exporter, particularly of cereal grains.

The United States produces almost 20 percent of the world's cereals, but uses only two-thirds of its domestic output, leaving the rest for stocks or exports. Developing countries consume one-third of the world's cereals, 5 percentage points more than they produce. These countries import almost half of U.S. cereal exports.

Global per capita food use of wheat and rice gained significantly since 1965, but the rate of increase slowed in the 1980's. Consumption of these food grains grew in the developing countries, especially during the 1970's, when world income rose rapidly. In the developed countries, however, per capita consumption fell, declining faster during years of high income growth as more of consumers' food dollars went to upgrading diets with more expensive items, such as meat.

Animal products constitute 15 percent of global average caloric intake, with meat and offals accounting for 7 percent; milk, 4; fats and oils, 2; and eggs and fish, 1 percent each. As for meat and offals, 53 percent of the calories comes from pork; 27 from beef and veal; poultry, 10; lamb, mutton, and goat, 5; and other meat and offal, 5 percent. People in Oceania, North America, and Europe ingest over 30 percent of their total calories in animal products, compared with 8 percent for Africans and 6 percent for South, East, and Southeast Asians (excluding Japanese and Chinese).

During 1979–1981, world per capita caloric consumption per day averaged 2,361. Although not the highest, U.S. intake was 3,641, compared with 3,454 in Europe, and 3,360 in the USSR. At the lower end were Africa (excluding North and South Africa) at 2,186 and South Asia with 2,048.

To help meet basic food needs, almost 11 million tons of cereals will be donated in 1985/86, with about 85 percent going to low-income, food-deficit countries. U.S. shipments will constitute about two-thirds of all cereal aid. The European Community, the second largest donor, will provide almost 15 percent.

The food assistance needed to meet minimum nutritional needs in the 69 developing countries studied in the latest World Food Needs and Availabilities report declined sharply in 1985/86 and continues to fall in 1986/87, largely because of the greatly improved food situation in Africa. In 16 of 20 Sub-Saharan countries with national food emergencies last year, domestic cereal supplies have returned to normal. However, severe food shortages continue in Ethiopia, Angola, Mozambique, and Cape Verde.

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Storage and distribution constraints on large volumes of food imports limit the progress that could be made in meeting these food needs, especially in East and Southern Africa and in South Asia--particularly Ethiopia, Mozambique, and Bangladesh. These constraints would allow the 69 developing countries to absorb only an estimated 18 million of the 22.6 million tons of cereals needed to meet minimal nutritional standards in 1985/86.

* *

WORLD ECONOMIC CONDITIONS

Global Assessment

Growth To Slow in 1986

Economic growth for the world, excluding the United States, in 1986 will likely slow for the second consecutive year. Growth will be around 2.9 percent, compared with 3 percent in 1985 and 3.1 percent in 1984. A major factor behind this slowdown is the slower U.S. growth since 1984, which has dampened U.S. demand for other countries' exports. Moreover, the dollar's decline in value since February 1984 has begun to increase U.S. prices for imports, contributing further to the slowdown in volume. In addition to the slowdown in U.S. import growth, the major factors supporting the outlook include declining petroleum prices, lower rates of inflation in much of the world, and changes in the dollar's value.

Despite the projected slowing of overall activity this year, domestic demand is likely to play a larger role in many countries' growth. Thus, the slowdown is not apt to have a large effect on demand for agricultural goods. Worldwide demand for agricultural goods may well begin to rise because of the 30-percent decline in the dollar since last February. Foreign currency prices for U.S. agricultural exports in some markets have declined by as much as the dollar's fall. During 1986, prices for most commodities can be expected to drop even more because of the legislated decline in U.S. loan rates and the Secretary's decision to lower loan rates even more.

Several factors are supporting growth in 1986. Chief among these is the recent decline in world petroleum prices. This drop in oil prices, magnified in many countries by the appreciation of their currencies against the dollar, will help accelerate income growth in much of the world. A second factor is the continuing low rate of inflation in the industrialized world. Low inflation, as well as the expectation that inflation will remain low, has allowed monetary officials to control money supplies within moderate rather than recession-creating bounds.

Oil Price Decline Doubles Mexico's Credit Needs

Some countries that depend on petroleum exports to finance imports and debt repayments are in a worsening position. Mexico, for example, doubled its requests for additional international credits for 1986, following a $4-a-barrel decline in its export prices. The drop in oil export prices to $15.07 a barrel in February, down $8.68 since January 31, has boosted Mexico's new credit needs to $8 to $9 billion, up from $4.8 billion. The need for added funds, the economic measures that Mexico might undertake in order to qualify for them, and the 10-percent peso devaluation following the price cut could reduce commercial sales of U.S. agricultural products.

Globally, the declines in oil prices will likely have beneficial effects on regional growth and inflation rates as early as this year. Oil price reductions of 30 percent or more, combined with currency appreciations of roughly the same magnitude for several major currencies, have resulted in potential savings of 50 percent or more for petroleum importers. Future changes in oil prices will likely depend the most on how quickly the Organization of Petroleum Exporting Countries (OPEC) is able to impose discipline on itself and on non-OPEC oil-exporting countries. Strengthening demand for oil will probably not raise oil prices significantly this year or next, given the still-low growth rates in Europe.

Dollar Depreciation Not Uniform

The future value of the dollar reflects a second uncertainty, complicated in part by movements in oil prices. Changes in the dollar's value will especially affect those

countries whose growth depends on exports to the United States or to markets that purchase U.S. exports. U.S. imports could decline this year, reducing other countries' export earnings below what they would be otherwise.

Price changes resulting from the uneven movement of the dollar against a broad range of currencies will diversely affect U.S. demand for goods from different regions. U.S. demand for Japanese goods is apt to decline relative to that for Canadian, Brazilian, and Korean goods, among others. Japan's yen has appreciated 30 percent since its peak last February; during the same time, Canada's dollar has depreciated about 2 percent, and Korea's won has depreciated 4 percent. In response, Japan's exporters, especially of autos and electronic goods, are widely recognized to be raising the dollar prices of their U.S.-bound exports. Exporters in Canada, Brazil, and Korea are not reported to be raising dollar-denominated export prices.

The expected continuing slowdown or decline in U.S. imports this year could exert a drag on Japan's economic growth. In 1984, 6.6-percent U.S. real growth helped stimulate a 39-percent increase in the value of Japan's exports to the United States. U.S. purchases accounted for one-third of Japan's 6-percent expansion of nominal income. In 1985, U.S. real growth slowed to 2.3 percent, and total imports increased only slightly. Japan's exports to the United States increased an estimated 6 percent.

For the oil-importing developing countries, the decline in oil prices will likely provide a much needed stimulus to growth. Several major indicators from 1985 reflect the stagnation of economic conditions in much of the developing world. Dollar prices for internationally traded commodities declined 12 percent in 1985, after rising slightly last year. The 12-percent drop in 1985 brings commodity prices to 72 percent of their 1980 highs. Increases in trade volumes, the data for which are not available, have apparently been insufficient to overcome the declines in prices.

For Asia, the Middle East, and Latin America, export values, expressed in dollars, through the first half of 1985 declined from a year earlier 2, 10, and 12 percent, respectively. Asia and Latin America's imports, a broad measure of their domestic economic activity, declined from the second half of 1984 by 2 and 4 percent, respectively. [*Art Morey (202) 786-1687*]

Dollar Exchange Rates

Oil Prices Affect Currencies

Sharply falling world petroleum prices since January have affected the foreign currency value of the dollar. Energy-related currencies, such as the British pound and the Canadian dollar, have depreciated against the U.S. dollar.

Lower oil prices and inflation prospects improve the outlook for the U.S. economy, exports, and dollar. The beneficial impact of lower oil prices for energy importers is greater for economies where oil imports play a major role in the economy, such as Japan and Germany. These currencies have continued strong against the U.S. dollar.

U.S. agricultural markets among oil-importing developing countries will also benefit. However, many of these countries continue to export more than they import to repay their debt burdens. In addition, the dollar has depreciated less against many of these countries' currencies than against those of industrial nations.

Foreign currency units per U.S. dollar

Year	Mark	Yen	Pound	Guilder	Can$
1980	1.818	226.4	.4299	1.987	1.169
1981	2.257	220.2	.4983	2.492	1.198
1982	2.427	248.8	.5722	2.669	1.233
1983	2.554	237.4	.6597	2.853	1.232
1984	2.847	237.6	.7517	3.209	1.295
1985	2.942	238.3	.7790	3.319	1.365
Jan.	3.169	254.1	.8861	3.579	1.324
Feb.	3.300	260.2	.9141	3.734	1.354
Mar.	3.296	257.8	.8903	3.724	1.383
Apr.	3.087	251.5	.8066	3.490	1.364
May	3.103	251.6	.8001	3.510	1.375
June	3.062	248.8	.7817	3.450	1.367
July	2.906	241.1	.7241	3.270	1.352
Aug	2.792	237.3	.7226	3.151	1.357
Sept.	2.836	236.2	.7329	3.190	1.369
Oct.	2.643	214.6	.7031	2.980	1.366
Nov.	2.594	203.8	.6946	2.921	1.376
Dec.	2.511	202.7	.6919	2.829	1.395
1986					
Jan.	2.437	199.8	.7014	2.746	1.407
Feb.	2.330	184.8	.6999	2.632	1.404
Mar.1/	2.253	178.3	.6821	2.541	1.401

1/ Preliminary.

Against the major industrial currencies, the dollar decline appears to have stabilized some, with indications from the United States, Japan, and Germany that world economic activity needs to adjust further to the lower value of the dollar before new declines. These countries play a pivotal role in the G-5 group (the United States, Japan, Germany, France, and the United Kingdom), whose finance ministers and central bank governors announced in September their intention to see an orderly appreciation of the non-dollar currencies continue against the U.S. dollar.

Interest Rates

The recent G-5 meeting in January agreed that the progress to date on the value of the dollar should not be reversed. They did not announce publicly any coordinated agreement to lower interest rates, as was widely expected at the time. Nonetheless, in early March the German central bank reduced its discount rate, followed directly by discount rate reductions by France, the Netherlands, Japan, and the United States.

British and Canadian interest rates have increased substantially since January, when energy prices began falling, to stem further currency depreciation. Increases in British base lending rates to over 12 percent arrested the pound's near 10-percent depreciation against the dollar between early December and February, leaving the British pound near its average value since October, around 0.70 pounds per dollar (U.S. $1.43 per pound).

The Canadian prime rate has risen more than 3 percentage points since January, to 13.5 percent, curtailing depreciation of the Canadian dollar. The Canadian dollar declined to Can$1.44 per U.S. dollar on February 4, before the Canadian central bank intervened to restore its currency to nearer Can$1.40. A factor weakening the Canadian dollar is the lack of resolve to reduce the Canadian Government's budget deficit, proportionally twice as large as that in the United States.

In contrast, low interest rates in Germany and Japan following their discount rate reductions to 3.5 and 4 percent, respectively, maintain the interest rate differential in favor of U.S. dollar assets, even following the Federal Reserve discount rate cut to 7 percent.

The U.S. Federal Reserve has indicated it would rather see foreign economic expansion increase demand for U.S. exports and the dollar than expand the U.S. money supply. Expansionary monetary policy might further lower the dollar's value, but risk precipitating increases in U.S. inflation. Japan and Germany are attempting to induce increases in private demand to replace reductions in their fiscal deficits by lowering interest rates, rather than using fiscal stimulus to expand their economies.

Wider interest rate differentials in favor of the dollar would slow further declines in the dollar. However, further dollar depreciation is possible, provided lower interest rates in both the United States and abroad leave this gap insufficient to attract capital into dollar assets.

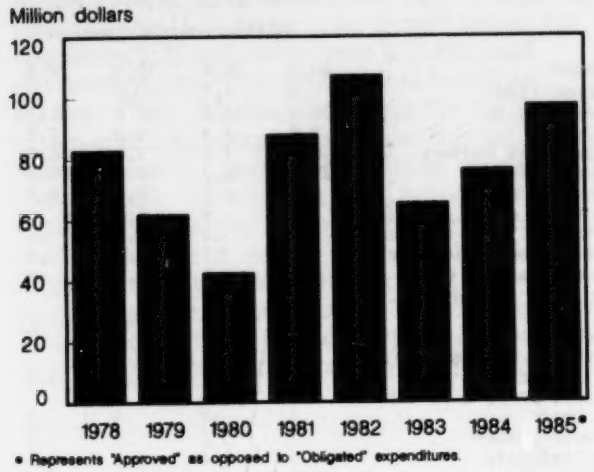
Since its high in February 1985, the dollar has fallen more than 30 percent against the yen and the mark, with most of the decline since late September in the case of the yen. Japan has indicated that the appreciation to 175-180 yen per dollar was too rapid, implying a lesser rate as preferable. Germany also wishes to retain an exchange rate near 2.3 to 2.4 marks per dollar, rather than see further weakening of the dollar. However, the fall in world energy prices may keep the British pound and the Canadian dollar from strengthening against the U.S. dollar. [*Ted Wilson (202) 786-1688*]

World Shipping

Cargo Preference on CCC Exports

Until recently, cargo preference (the practice of requiring cargo that is owned or concessionally financed by the U.S. Government to be carried on U.S.-flag ships) had been applied to 50 percent of USDA's Food for Peace (P.L. 480) concessional sales and donations, as well as donations under Section 416 of the Agricultural Act of 1949. Cargo preference had not been applied to USDA's various export promotion programs. However, in February 1985, the U.S. District Court for the District of Columbia ruled that cargo preference was also to be applied to USDA's blended credit program.

P.L. 480 Ocean Freight Differential Costs are Substantial



* Represents "Approved" as opposed to "Obligated" expenditures.

After the U.S. District Court ruling, USDA announced the suspension of approval of all sales registrations under the blended credit program, and the Administration announced its support of Congressional legislation that would exempt all commercial export activities of USDA's Commodity Credit Corporation from cargo preference requirements.

Cargo Preference Compromise Enacted

In response to the growing cargo preference controversy, Senator Robert Dole encouraged several meetings between representatives of maritime and agricultural groups in June 1985. As a result of the meetings, a compromise was formulated. USDA's export promotion programs would be exempt from cargo preference requirements in exchange for the reservation of a higher proportion of P.L. 480 cargoes for U.S.-flag vessels. The compromise subsequently became part of the recently enacted Food Security Act of 1985, P.L. 99-198.

Under P.L. 99-198, the amount of agricultural concessional cargoes reserved for U.S.-flag vessels will increase from 50 to 75 percent, phased in over 3 years starting on April 1, 1985. Also, the Department of Transportation is mandated to pay the costs associated with the additional 25-percent reservation. If the funds are not available, the so-called "snapback" provision would come into play, and the cargo preference requirements applicable to agricultural exports would return to 50 percent of P.L. 480 cargoes, as well as 50 percent of USDA's commercial (blended credit) export promotion cargoes.

Administration Seeks To Repeal Compromise

The Administration's fiscal 1987 budget prohibits the Secretary of Transportation from "issuing obligations to finance the increased costs pursuant to Public Law 99-198" in 1986 and 1987. Citing its long standing opposition to expanding existing cargo preference requirements, the Administration further stated that it will be proposing legislation to repeal the compromise, which it considers to be "an unjustified additional subsidy to the maritime industry." Administration figures projected that if the Congress does not act on the Administration's legislative proposal, the Secretary of Transportation will be required to borrow an "estimated $48 million in 1986 and $120 million in 1987" to finance the costs of the compromise. [*Kay McLennan (202) 786-1624*]

U.S. AGRICULTURAL TRADE

In 1985, U.S. agricultural exports underwent one of their largest annual adjustments to date, with export volume falling more than 27 million tons. Only in 1973 did a larger change occur, when volume rose more than 33 million tons. The lower export volume and declining world prices reduced export value $8.7 billion to $29.1 billion. The declining export value and an increasing import value reduced the U.S. agricultural trade surplus to $9.6 billion, its lowest since 1973.

U.S. World Trade Share Slips

The decline in U.S. farm product exports--now at their lowest in nearly a decade--partly reflects developments affecting all exporters; however, the relative U.S. position has deteriorated. In 1985, economic growth fell in the foreign industrialized economies, the largest U.S. market abroad. Furthermore, 1985 was the third year of the last 5 with falling commodity prices and a growth rate for world trade volume that failed to exceed growth in world gross national product (GNP).

U.S. agricultural export values 1/

Commodity	1982	1983	1984	1985
	Billion dollars			
Grains and preparations	15.6	16.2	17.2	11.9
Wheat	6.7	6.2	6.5	3.6
Wheat flour	.2	.3	.2	.2
Feed grains	6.4	7.2	3.1	6.0
Rice	1.0	.9	.8	.7
Feeds and fodders	1.0	1.2	1.2	1.1
Oilseeds and products	9.1	8.7	8.4	5.8
Soybeans	6.2	5.9	5.4	3.7
Soybean cake and meal	1.4	1.5	1.0	.9
Soybean oil	.5	.4	.8	.4
Animals and products	3.9	3.8	4.2	4.1
Hides and skins	1.0	1.0	1.4	1.3
Red meats, incl. offals	1.0	.9	.9	.9
Animal fats	.7	.6	.7	.6
Poultry products	.5	.4	.4	.4
Dairy products	.3	.4	.4	.4
Fruits, vegetables, and nuts	2.9	2.6	2.6	2.6
Cotton, incl. linters	2.0	1.8	2.4	1.6
Tobacco	1.5	1.5	1.5	1.5
Other	.6	.3	.3	.4
Total	36.6	36.1	37.8	29.0

1/ Calendar years.

U.S. agricultural export volume 1/

Commodity	1982	1983	1984	1985
	Million metric tons			
Wheat	40.8	38.4	42.2	24.8
Wheat flour	.8	1.7	.9	.9
Feed grains	56.2	54.3	57.7	51.3
Rice	2.6	2.4	2.2	2.0
Feeds and fodders	6.1	7.3	7.0	6.7
Soybeans	25.5	22.7	19.5	16.9
Soybean meal	6.2	6.5	4.4	4.7
Soybean oil	.9	.8	1.0	.6
Other oilcake and meal	.2	.2	.2	.1
Other vegetable oils	.7	.7	.6	.6
Sunflowerseed	1.5	.8	1.5	.5
Cotton, including linters	1.4	1.3	1.5	1.1
Tobacco	.3	.2	.2	.2
Fruits, vegetables, & nuts	4.0	3.7	3.5	3.3
Beef, pork, & variety meats	.4	.4	.4	.4
Poultry meat	.3	.2	.2	.2
Animal fats	1.5	1.4	1.3	1.3
Other	2.8	1.1	2.7	3.1
Total	152.1	144.1	147.0	118.7

1/ Calendar years. Excludes animal numbers and some commodities reported in cases, pieces, dozens, liquid measures, etc.

International commodity prices

Year	Wheat				Corn		Soybeans	Soyoil	Soymeal 44%	
	U.S. 1/	Arg. 2/	Can. 3/	Aust. 4/	U.S. 5/	Arg. 2/	U.S. 5/	U.S. 6/	U.S. 6/	Hamburg 7/
	Dollars per metric ton									
1977	105	100	116	113	98	93	271	524	212	240
1978	131	126	134	119	105	102	259	565	189	226
1979	162	159	171	142	118	117	278	610	160	254
1980	176	203	192	175	129	159	272	522	217	271
1981	176	190	194	175	135	139	272	464	223	269
1982	161	166	165	160	110	109	233	404	197	233
1983	158	138	167	161	137	133	269	518	222	255
1984	153	135	166	153	138	132	271	678	184	210
1985	137	106	171	141	114	103	214	596	140	171
Jan.	149	110	164	153	121	108	231	633	150	175
Feb.	148	111	164	150	120	106	228	649	139	163
Mar.	146	114	164	149	122	109	231	691	139	171
Apr.	146	113	174	148	122	110	231	751	130	174
May	139	112	172	145	118	109	222	715	123	165
June	134	107	173	141	117	111	222	715	122	158
July	130	107	171	134	117	112	215	636	128	159
Aug.	125	98	157	128	106	101	202	521	134	159
Sept.	128	93	164	131	103	88	200	494	144	168
Oct.	129	92	172	134	100	90	186	454	154	182
Nov.	135	98	181	139	109	95	198	448	156	188
Dec.	139	114	192	144	111	100	204	469	161	187
1986										
Jan.	133	108	181	140	108	100	210	447	168	197
Feb. 8/	131	102	175	133	105	92	207	404	169	201

1/ No. 2 hard winter, ordinary protein, f.o.b. Gulf ports. 2/ F.o.b. Buenos Aires. 3/ No. 1 western red spring, 13.5% protein, in store Thunder Bay. 4/ July-June crop year, standard white, f.o.b. selling price. 5/ U.S. No. 3 yellow, f.o.b. Gulf ports. 6/ Decatur. 7/ F.o.b. ex-mill. 8/ Preliminary.

These developments contrasted strongly with the rapid rises in prices, GNP, and trade in the 1970's. In addition, the trade-weighted value of the U.S. dollar rose in real terms for the seventh consecutive year in 1985, and overseas agricultural production remained strong. With U.S. support levels for the prices of several major export commodities set above market clearing levels, U.S. stocks rose and exports fell. As a result, the United States shouldered a larger share of the agricultural trade adjustment, seeing its share drop for the fifth consecutive year. By contrast, Argentina, the United States' largest grain and oilseed competitor, saw export volume exceed previous records for the second time in 3 years.

Export Value Will Probably Fall in 1986

U.S. agricultural exports were weaker in the first 2 months of calendar 1986, compared with the same period in 1985, and are expected to remain weak throughout the first half of the year. What this means for the year as a whole is less certain. Typically, export volume peaks at the beginning and end of each calendar year. During 1986, this seasonal pattern is expected to be significantly different because of the impending changes in U.S. commodity programs. The new programs will generally mean lower export prices later in the year, and some purchases are undoubtedly being delayed until these programs come into effect. At the same time, competing exporters have an incentive to maximize sales and shipments early in the year. Together, these factors mean U.S. export volume will be more skewed towards the latter part of the year. [*Stephen MacDonald (202) 786-1621*]

WORLD COMMODITY DEVELOPMENTS

Wheat and Rice

World per capita food consumption of wheat and rice has shown significant gains over the past two decades, but the rate of increase has slowed in the 1980's. Consumption patterns for these food grains vary widely among countries and within populations, depending on a number of factors, including climate conditions, incomes, and the urban/rural mix.

Wheat: Per capita consumption 1/

Country	1964-66	1974-76	1979-81	1985
	Kilograms per year			
Developed	95.3	92.9	91.9	91.9
U.S.	80.3	84.0	85.1	86.7
W. Europe	117.3	110.7	109.8	109.5
Japan	46.1	50.5	50.8	51.1
S. Africa	56.7	65.5	64.4	65.4
Centrally planned	97.5	100.8	113.4	121.5
East Europe	163.8	167.4	169.9	167.1
USSR	238.8	236.9	236.6	219.8
China	40.8	53.7	72.4	89.2
Developing	42.9	52.2	57.7	58.8
Latin America	52.2	58.8	59.7	56.4
Mexico	34.6	46.6	47.3	45.2
Brazil	29.1	49.4	54.2	49.4
Middle East	144.6	132.1	142.8	141.2
Iraq	124.4	169.4	199.4	212.8
Turkey	246.4	245.7	271.1	260.6
South Asia	41.7	51.5	58.0	62.1
India	36.2	44.1	51.1	55.8
Pakistan	106.3	122.9	129.6	128.3
Other Asia	24.7	35.1	39.2	40.5
Indonesia	.2	6.2	8.7	7.9
Thailand	1.4	2.1	4.1	3.3
North Africa	121.5	164.7	179.3	181.2
Algeria	130.5	179.8	186.2	187.1
Egypt	121.1	151.6	174.8	173.3
Other Africa	9.9	12.3	15.9	17.9
Nigeria	2.0	7.3	16.3	17.5
Sudan	19.4	28.4	28.9	33.7
World	71.5	75.3	80.7	82.9

1/ Average of crop years beginning in year shown. Excludes feed use but includes seed and industrial use.

Consumption Growth Slows

World per capita consumption of wheat and rice grew at a compound annual rate of 0.84 percent during the past two decades, with rice showing a 0.23 percent faster rate of growth than wheat. While rice has been able to maintain its early pace, boosted by huge gains in China, per capita wheat consumption has slowed dramatically.

World per capita wheat consumption grew 0.81 percent a year between 1965 and 1980, led by an annual gain of almost 2 percent in the developing countries. With the developing countries' gains reduced to only a fourth of this level in the 1980's, world growth slowed to only 0.54 percent.

Growth rates of less than 1 percent a year may seem insignificant until they are translated into total volume figures. With world population growing 1.9 percent a year, total consumption of wheat would have had to

Rice: Per capita consumption 1/

Country	1964-66	1974-76	1979-81	1985
	Kilograms per year			
Developed	21.5	18.8	18.5	17.3
U.S.	5.4	7.0	9.0	7.9
W. Europe	3.8	4.0	4.2	4.4
Japan	120.6	95.9	88.0	81.1
South Africa	2.9	2.9	4.4	5.2
Centrally planned	58.0	68.0	73.9	81.7
East Europe	3.1	3.2	3.5	3.7
USSR	3.0	6.1	9.2	6.7
China	84.9	94.2	100.9	111.9
Developing	65.2	66.5	69.9	71.3
Latin America	26.8	26.6	30.1	28.6
Mexico	5.3	5.5	5.4	5.5
Brazil	52.8	45.3	50.8	46.9
Middle East	23.9	30.5	33.6	34.8
Iraq	14.3	25.5	36.1	39.3
Turkey	4.0	4.9	5.0	4.9
South Asia	74.6	74.8	77.7	79.8
India	68.4	70.1	74.1	77.3
Pakistan	20.4	25.7	26.4	24.7
Other Asia	204.9	212.7	223.3	233.1
Indonesia	95.5	119.7	137.0	150.2
Thailand	183.7	183.1	174.6	160.1
North Africa	15.4	19.5	18.5	17.9
Algeria	.5	.4	1.2	1.2
Egypt	28.4	37.3	35.1	33.6
Other Africa	17.1	16.7	21.3	20.7
Nigeria	4.5	5.4	13.6	14.3
Sudan	.6	.4	.7	1.0
World	53.8	58.4	62.1	65.3

1/ Average of crop years beginning in year shown. Excludes feed use but includes seed and industrial use.

increase 107 million tons and rice 79 million to maintain 1985 per capita consumption at the 1965 level. Actual consumption growth between 1964-1966 and 1985 was 165 million tons of wheat and 135 million of rice.

Many Factors Affect Consumption

Wheat and rice consumption by individual consumers is highly influenced by incomes, tastes and preferences, availabilities, and relative prices of these food grains to other food and nonfood items. A major factor behind the increases in per capita consumption has been the development of new wheat and rice varieties and the availability of new seeds and technologies to farmers, especially in developing countries.

Impressive increases in wheat and rice production have greatly expanded supplies of these grains and have helped keep wheat and rice prices relatively low. Income growth, migration from rural to urban areas, and export credit programs have also expanded promoted wheat and rice consumption in developing countries.

Larger Incomes Mean More Use, Then Less

Engel's law states that the proportion of a family's budget devoted to food declines as the family's income increases. Subsequent research shows that the proportion of calories that a family derives from the basic starchy staples falls with rising income, as the family diversifies its food intake to include more nongrain foods.

In the first stage, income gains lead low income consumers to increase their total consumption of grains as they shift to the preferred food grains. Therefore, the increase in wheat and rice consumption in many developing nations comes at the expense of other traditional starchy staples, such as root crops (cassava, yams), other grains (corn, millet, and sorghum), and other starches (plantains). In the second stage (as incomes rise even further), direct consumption of grain declines as consumers shift part of their diets to nongrain foods, such as meat.

Per capita consumption of wheat and rice in the developing countries expanded over the past two decades, especially during the 1970's, when world income increased rapidly. In the developed countries, however, direct per capita consumption of wheat and rice fell during the same period, declining most rapidly during years of high income growth.

Output and Imports Boost Use

Increases in per capita wheat and rice consumption in many developing and centrally planned nations are also influenced by long-term government policies to expand production, imports, or both.

For wheat, production gains in India, Pakistan, and Turkey accounted for most of the increase in their per capita consumption. In China, Brazil, and Mexico, production gains were the predominant factor behind the large consumption gains, with expanded imports playing a lesser role. For many other nations, such as Algeria, Egypt, Indonesia, Iraq, Nigeria, and the Sudan, increased per capita consumption resulted from substantially larger wheat imports. Many of these nations and

others took advantage of a variety of expanded credit and food aid programs offered by wheat exporters. On the other hand, Nigeria's large increase in per capita wheat and rice consumption during the 1970's was financed largely with oil revenues.

The increases in per capita rice consumption in nations such as China, India, Indonesia, and Pakistan were made possible by the successful adoption of higher yielding varieties and the increased use of chemicals, fertilizer, and irrigation. Large consumption increases in Iraq in recent years were the direct result of short-term credit guarantees offered by the United States. [*Scott Reynolds (202) 786-1691*]

Coarse Grains

Coarse grains' importance in the diets of many of the world's consumers is often understated. While two-thirds of the world's coarse grain use will go for animal feeding in 1985/86, per capita nonfeed use is only 25 percent below wheat and 10 percent less than rice. However, with coarse grain consumption remaining fairly stable during the past two decades and food grains increasing sharply, its relative importance has declined.

Some countries use most of their coarse grain supplies for domestic feed or exports---consuming little as food. Many others, however, consume coarse grains as food out of necessity. Their ability to upgrade diets is limited by sluggish domestic economic growth and an inability to generate required hard currency for imports. Many of these countries are also likely to have an underdeveloped and inefficient livestock sector whose demand for feed grains is relatively small.

Sudan, Mexico, the United States, and South Africa are leaders in per capita nonfeed use of coarse grains, 2 to 2.5 times the world average. Nonfeed consumption in the United States is inflated by industrial uses, including the production of corn sweetners, ethanol, and beer, as well as extensive seed use. This expanding industrial use is the primary reason for the doubling of U.S. per capita nonfeed use since 1965.

With the exception of the United States and South Africa, coarse grain use is relatively low in the developed countries. Corn is a staple in the South African diet, although a prolonged drought dramatically reduced consumption in recent years.

The developing nations have the least average per capita consumption, although two countries stand out---Mexico and Sudan---each consuming over 150 kilograms per capita. Corn flour accounts for the bulk of the consumption in Mexico, but corn and other coarse grains are also used for beer and starch. However, nonfeed per capita consumption for Latin America as a whole is low.

The Sudan relies on sorghum for much of its food, and this was the primary food donated by the United States and other countries to fight the recent famine. Per capita nonfeed consumption in the Sub-Saharan region is the highest for all the developing regions, and is substantially higher than the developing nations' average.

Coarse grains: Per capita consumption 1/

Country	1964-66	1974-76	1979-81	1985
		Kilograms per year		
Developed	55	66	65	86
U.S.	72	82	107	143
W. Europe	48	63	65	63
Japan	17	20	26	31
South Africa	167	154	149	121
Centrally planned	108	123	114	108
East Europe	111	105	104	109
USSR	106	133	119	108
China	NA	NA	NA	NA
Developing	48	50	48	44
Latin America	69	68	67	61
Mexico	160	170	178	158
Brazil	46	36	31	31
Middle East	57	49	33	24
Iraq	93	46	46	26
Turkey	69	62	43	38
South Asia	33	35	35	32
India	49	44	40	37
Pakistan	21	18	18	17
Other Asia	23	23	24	24
Indonesia	27	17	22	25
Thailand	1	4	3	1
North Africa	104	110	81	56
Algeria	22	58	25	22
Egypt	108	82	67	23
Other Africa	105	102	95	96
Nigeria	127	114	96	91
Sudan	102	137	121	152
World	57	62	59	60

NA = Food use not available.

1/ Average of crop years beginning in year shown. Excludes feed use but includes seed and industrial use.

Per capita nonfeed consumption for most other developing countries since the mid-1960's has either fallen or remained relatively flat. Significant declines have occurred in the Middle East and North Africa, while there has been little or no growth in Asia.

Thailand, a major coarse grain export competitor, consumes the least amount per capita on a nonfeed basis with an average of only 3 to 4 kilograms per capita annually. Thai policy is to either feed or export almost the entire annual production.

Per capita consumption among the centrally planned countries, excluding China, has averaged 110 to 115 kilograms annually during the last 20 years. Typical diets in both the Soviet Union and Eastern Europe depend largely on coarse grains. As these countries continue their efforts to improve their diets, these estimates should slowly begin to fall. To date, however, the trend has been flat, with annual fluctuations coinciding largely with production gains or losses. [*James Cole (202) 786-1691*]

Vegetable Oils

The consumption of vegetable oils is highly correlated with population and income growth. The past 10 years have been characterized by rapid gains in oil crop production and population, while economic growth and development were only strong through 1980 but weak afterwards. Global vegetable oil use has been affected more by cultural factors and per capita income around the world than by vegetable oil prices and supplies.

Oil-bearing crop output has burgeoned over the past decade, especially palm, rapeseed, and sunflowerseed. Vegetable oils meet a spectrum of consumer needs. For consumers at subsistence levels of total food intake, the highly caloric vegetable oils help fulfill basic nutrition requirements. Vegetable oils provide essential fatty acids that assist the body in absorbing nutrients. Consumers at higher incomes also use vegetable oils as a complement to a variety of other foods. Therefore, food demand for vegetable oils ranges from high growth potential in some markets to limited potential in many developed-country markets.

Growth in per capita consumption has been the greatest in the centrally planned nations (Eastern Europe, the USSR, and China), which doubled consumption over the decade. Consumption grew more rapidly in the developing regions than in the developed nations.

India Makes Large Advances

Consumption of vegetable oils in the developing countries has generally increased. India, the world's largest importer of vegetable oils, is a prime example. Since 1980, India's domestic oilseed output increased significantly as the Government continued to reduce imports through oilseed price support programs and development and promotion of oilseed production technology.

India's per capita consumption of vegetable oils rose at nearly twice the average rate of the developing nations but has slowed since 1980. The country's per capita consumption may decline this year, as the Government seeks to strengthen producer price incentives by slowing vegetable oil imports. Abnormally large imports in 1984 and 1985 led to depressed domestic oilseed prices and rising oil stocks, as well as increased consumption. One of the main goals of the Government's import substitution program is to strengthen domestic oilseed prices to stimulate growth in oilseed area and investment in new technology. The fall in domestic oil prices following large imports was the first since 1977. The drop in edible oil imports and use in 1985/86 will be accomplished primarily by restricting the use of imported oils, principally soybean oil, in the production of vanaspati.

The Indian Government will likely continue to place high priority on boosting oilseed production because of the need to reduce foreign exchange outlays for edible oils, now the third largest import bill.

Low Petroleum Prices Hurt Vegetable Oils

Other developing countries are struggling to maintain consumption of vegetable oils. Among the developing countries, Nigeria is one which pulls down the average rate of increase for this category. Over the past 10 years, large petroleum revenues were

stimulating economic growth, and Nigeria's per capita vegetable oil consumption rose roughly 4 kilograms per person between 1974-1976 and 1979-1981. However, since then peanut production declined for many years, and per capita consumption returned to the level of the mid-1970's. Furthermore, Nigeria may have difficulty rebuilding per capita consumption, because of the likelihood of declining economic growth resulting from the dramatic fall in petroleum earnings.

Mexico nearly tripled per capita consumption of vegetable oils over the course of the decade--a result of the growth in economic development. However, like Nigeria, falling petroleum prices will adversely affect income growth and demand. However, the amount of credit allocated to Mexico for vegetable oils under the U.S. GSM-102 credit guarantee program has been raised by lowering the allocation for feed grains. Therefore, vegetable oil use may be sustained better than other consumption needs.

Vegetable oils: Per capita consumption 1/

Country	1974-76	1979-81	1985
	Kilograms per year		
Developed	14.34	16.31	17.61
U.S.	20.81	22.52	23.80
W. Europe	12.72	14.53	15.62
Japan	9.63	12.05	13.49
South Africa	6.22	8.03	7.75
Centrally planned	4.25	4.81	8.68
East Europe	9.10	11.01	12.65
USSR	10.72	11.75	12.11
China	1.76	2.19	3.68
Developing	5.43	6.19	7.82
Latin America	7.88	10.67	11.39
Mexico	5.14	8.64	11.38
Brazil	9.01	13.21	12.96
Middle East	6.98	8.43	11.61
Iraq	10.12	11.40	14.84
Turkey	9.36	10.34	13.55
South Asia	4.26	5.24	5.95
India	4.52	5.41	6.04
Pakistan	5.39	8.30	10.04
Other Asia	3.87	5.94	7.97
Indonesia	5.03	7.45	9.69
Thailand	1.43	2.44	3.03
North Africa	8.17	10.00	12.42
Algeria	7.62	10.46	13.30
Egypt	9.14	10.72	13.16
Other Africa	6.18	6.71	5.73
Nigeria	8.82	10.43	7.75
Sudan	8.34	8.37	6.22
World	6.66	7.88	9.79

1/ Average of crop years beginning in year shown. Includes industrial use.

Growth Steady in Developed Countries

In the developed countries, growth in per capita vegetable oil consumption has been steady at roughly 3 percent between 1974-1976 and 1985. Japan made large gains in the use of vegetable oils, primarily because of increased trade in oilseeds. For Western Europe, disappearance grew nearly 4 kilograms to 15 kilograms per person. Growth in Western European oilseed output has resulted in increased oil supplies, depressed oil prices, and higher use. However, increased oil supplies have led to a surplus of olive oil, creating a surplus disposal problem for the European Community and the rest of Western Europe.

The potential for consumption growth in the developed countries is less than in the developing or centrally planned countries. In the developed countries, consumption is growing at a slow rate, but there is potential growth from processed food operations, industrial use, and energy substitution. However, the expense of incorporating vegetable oils into fuels makes this use attractive mostly when world petroleum supplies are scarce and prices are high. Therefore, the outlook for depressed crude oil prices suggests that vegetable oils will remain predominantly in the food and soap sectors.

China Skews the Average

In the centrally planned countries, per capita consumption was the lowest in the 1970's and early 1980's but by 1985 exceeded consumption in developing countries. China's low level pulls the average down, but the rapid growth in China put the centrally planned countries into the most recently fastest growing group. Also, for the Soviet Union and Eastern Europe, consumption includes animal fats, which are excluded in this data.

Per capita consumption in the Soviet Union has increased over the decade, despite the decline of the USSR's sunflowerseed crop. However, the current Soviet sunflowerseed crop is 16 percent above a year earlier. Combined with imports of soybeans and some recent inclination toward purchases of palm oil, Soviet per capita consumption of vegetable oils should rise this year.

In Eastern Europe, per capita consumption of vegetable oils was dampened in the early 1980's because of financial crisis, particularly in Poland. However, increased domestic output in recent years has caused a rebound in per capita consumption.

Still one of the lowest in the world, China's consumption has nearly tripled in just 10 years. The production of oilseeds has surged dramatically over the decade. The 1984/85 cottonseed crop exceeded all expectations, and China's production of rapeseed, soybeans, and peanuts also increased. Production gains were so enormous that China resumed its position as a net exporter of oilseeds.

Continued Growth Expected

The 1986 outlook for world vegetable oil consumption is for continued slow growth relative to output. Depressed prices cannot quickly deter palm oil output, because maturing trees planted during the past several years are expected to produce for the next two decades, and the potential for higher yields is great. Prospects for expanded trade and consumption growth are limited, though, because of the mixed economic outlook.

Petroleum-importing countries could benefit from lower fuel prices, but the savings may not be used to purchase more vegetable oil, especially in developed countries with saturated demand. These countries may use funds allocated for petroleum imports to import commodities other than vegetable oil. Energy exporters, on the other hand, will experience slow economic growth, and their consumption of vegetable oils could remain stagnant, at best.

Therefore, overall global vegetable oil demand growth will depend on the sensitivity of demand to lower prices in the developed countries, and the response in the developing countries during a period of slow economic growth. This combination indicates that vegetable oil consumption will expand in the next several years; however, demand growth will continue to be slow relative to growth in production, keeping prices depressed. [*Jan Lipson (202) 786-1691*]

Meat

Over the years, world meat consumption has increased. As consumers strive to improve their diets, meat consumption plays a prominent role. As countries' income increases, they increase their consumption of animal products. The developed countries have the largest per capita consumption of animal products. However, the oil rich countries in North Africa and the Middle East, as well as the East Asian Markets, have shown considerable growth in consumption of animal products in recent years. (For a more detailed discussion of meat's relation to other foods in various regions of the world see the special article "Meat's Importance in World Diets.")

Meat Consumption Up Again in 1985

Per capita consumption of all the meats increased slightly in the major meat-producing countries in 1985. This year, however, per capita consumption could be reduced, mainly because of lower beef supplies. Although feed prices have dropped, meat production and consumption are being restrained by a number of factors. A lack of hard currency and/or credit continues to restrict some countries' ability to import needed feed ingredients. Sluggish economic growth is also restricting demand for meat.

Beef Consumption To Decline

Per capita consumption of beef and veal increased minimally in 1985 in the major producing countries. Some reduction is expected during 1986 because of declines in the United States. U.S. cattle numbers continue to drop as producers respond to low returns and a need to improve cash flow.

Much the same situation is occurring in Canada. Herd liquidation is continuing because of several years of poor economic conditions within the cattle industry and drought in parts of the country during 1985.

The cattle cycle in Australia and New Zealand began to swing up during 1984. Although production has begun to increase, higher exports have kept consumption on the decline. Other meats are also increasing their competition for the consumer dollar.

Per capita beef and veal consumption 1/

Country	1982	1983	1984	1985 2/
	Kg., carcass wt.			
United States	48.1	49.0	49.0	49.5
Canada	42.1	41.7	40.2	40.2
Mexico	18.8	16.2	17.0	17.4
Argentina	70.4	66.2	76.4	80.8
Brazil	15.9	15.6	13.2	13.9
EC-10	24.0	24.1	24.4	24.8
USSR	26.0	27.6	28.2	28.4
Japan	5.5	5.8	6.1	6.4
Australia	49.3	42.5	41.1	42.4
52-country average 3/	16.4	16.3	16.3	16.4

1/ Based on available data as of March 1986. 2/ Preliminary. 3/ Countries included in FAS biannual circulars on livestock and poultry.

Per capita pork consumption 1/

Country	1982	1983	1984	1985 2/
	Kg., carcass wt.			
United States	28.6	30.2	30.0	30.1
Canada	27.9	28.6	27.9	28.0
Mexico	13.7	15.0	12.1	10.8
EC-10	34.3	34.7	35.0	35.4
Germany, Fed. Rep.	49.6	50.6	51.0	51.7
France	34.4	34.8	34.8	34.9
Netherlands	39.1	37.3	39.4	40.5
Germany, Dem. Rep.	57.6	61.1	59.9	62.4
Poland	42.2	39.8	34.9	37.5
USSR	19.9	21.5	22.0	21.6
China	12.4	12.7	13.8	15.7
Taiwan	26.9	29.0	34.6	37.4
Japan	14.0	13.9	14.2	14.3
37-country average 3/	19.2	19.7	19.9	20.7

1/ Based on available data as of March 1986. 2/ Preliminary. 3/ Countries included in FAS biannual circulars on livestock and poultry.

The dairy herd reduction program in the European Community (EC) resulted in a large increase in beef production in the EC, but consumption only rose slightly. Increased supplies of, and a preference for, meats such as pork have restrained beef consumption in the EC. Because domestic consumption is not absorbing all of the excess beef stocks, pressure will continue for increases in exports.

Cattle numbers declined in the Soviet Union during 1985, and production rose 2 percent. Per capita consumption also increased in 1985 but is forecast to decline this year. If the Soviet Union takes more of the EC's beef during 1986, this could give consumption a little nudge.

Imports account for a large part of Japan's beef consumption, and with the agreement to raise beef imports, domestic consumption will continue to increase. Higher Egyptian imports increased their consumption. However, with lower output and no increase in imports forecast for 1986, consumption could decline slightly. Lower world prices, because of the EC's beef export subsidies, could increase beef consumption in several East and South Asian countries in the near future.

Little Change in Pork This Year

Per capita consumption of pork in the major producing countries rose 4 percent in 1985, mainly because of the increase in China, but little change is expected this year. U.S. consumption is expected to decline slightly this year. The turnaround in U.S. pork output may have to wait for the producers' financial positions to improve. Cheaper feed prices will help improve returns, but turnaround may still be slower than usual because of the financial conditions in agriculture.

Consumption in Eastern Europe rose slightly in 1985, mainly because of recovery in Poland's pork output. Consumption continues to decline in Hungary. A lack of quality mixed feed concentrates and limited ability to import needed feed due to foreign currency restrictions are hampering any turnaround in Hungary's pork output.

Although feed is becoming cheaper in the EC, returns to hog producers could tighten further as larger pork supplies pressure prices. Consumption has been rising, and relatively low retail prices are expected to boost consumption this year.

In China, good feed supplies and improved profitability are spurring output gains. Producer and retail prices rose sharply because of the Government's relaxation of price controls on most livestock products. Increases in pork output should continue to keep ahead of population gains in 1986.

Per capita poultry consumption 1/

Country	1982	1983	1984	1985 2/
		Kg., carcass wt.		
United States	29.1	29.7	30.6	31.8
Canada	22.6	23.3	23.5	24.8
Mexico	7.8	7.2	8.5	8.8
Brazil	10.0	9.7	8.2	8.8
EC-10	14.1	14.5	14.5	14.5
Italy	17.5	17.5	17.0	16.6
France	16.5	17.3	17.2	17.3
Spain	22.7	21.5	20.9	21.3
Poland	5.9	5.6	6.9	7.0
USSR	9.9	10.3	10.2	10.4
Hong Kong	26.9	25.0	26.7	31.2
Japan	11.1	11.4	11.8	12.2
45-country average 3/	14.0	14.3	14.4	14.8

1/ Based on available data as of March 1986. 2/ Preliminary. 3/ Countries included in FAS biannual circulars on livestock and poultry.

Poultry Continues To Advance

Lower feed prices are improving poultry meat's competitive position in many areas, and world per capita consumption is continuing to increase. Heightened emphasis on reducing the amount of fat in diets and continued expansion into the fast food industry is increasing poultry meat's popularity in the United States and other countries.

In the EC, ample supplies of beef and pork are moderating gains in poultry consumption. The Soviet Union, despite tight feed supplies and reduced imports, increased poultry meat output in 1985. Continued production gains should lead to continued gains in per capita consumption in 1986.

While the Middle East has become a large consumer of poultry and output gains have cut imports, supplies have not kept pace with population growth. Therefore, per capita consumption of poultry has dropped. Some of the drop in poultry consumption may also have been caused by larger beef consumption. Low world beef prices are encouraging increased beef imports. [*Linda M. Bailey (202) 786-1691*]

REGIONAL DEVELOPMENTS

Western Hemisphere

U.S. Has a New Farm Act

The Food Security Act of 1985, signed into law on December 23, 1985, will guide U.S. farm policy for the next 5 years. The thrust of the Act is to make U.S. exports more competitive in world markets by lowering loan rates for wheat, coarse grains, cotton, and rice, thus allowing export prices to fall. The success of the program will depend to a large extent on how responsive U.S. exports are to lower prices.

Other features of the farm legislation include:

- target prices frozen for 2 years to support farm income;
- specific acreage reduction programs when stocks exceed certain levels;
- a whole herd dairy buyout program to reduce milk production capacity; and
- a conservation reserve of up to 45 million acres, under which farmers will receive an annual rental payment in return for placing land in the reserve for 10 years.

In addition, the Secretary of Agriculture has wide authority in implementing various commodity programs, which makes the future direction of U.S. farm prices difficult to predict.

U.S. Meat Output To Fall

Total red meat and poultry production in 1985 was a record, as poultry output increased and red meat production was unchanged. Poultry production is expected to increase moderately again in 1986, because of profitable feeding margins. Pork production is likely to be down slightly, and beef output may

drop 4 percent from 1985. Total meat production will be only slightly lower this year, and per capita disappearance of all meat will stay high. With continued growth in the general economy and reduced meat supplies, livestock prices will probably increase.

1986 U.S. Farm Income Down

Net farm income is forecast to decline again in 1986. Net cash income is also expected to fall from last year's estimated record, but will be about the same as in 1984. Farm income will be supported by higher livestock prices and large Government payments to crop farmers. Farmers will get some relief from low prices through declining production expenses. Expenses are expected to fall for the second year in a row and may be the lowest since 1980.

Canadian Farm Income Picture Changes

A larger-than-expected Canadian grain harvest has altered the picture for grain exports and farm income. Total grain production is now estimated 13 percent higher than last year. The increase will translate into higher grain exports. Wheat exports could exceed last year's by almost 500,000 tons, and coarse grain exports could grow by almost half.

Net farm income is forecast to improve because of the higher production. After falling 14 percent in 1985--the result of drought-reduced crops in 1984--net farm income is now forecast to increase almost 9 percent in 1986. Despite this more optimistic estimate, the Canadian farm economy is in the doldrums. Farm bankruptcies totaled over 500 in both 1984 and 1985, compared with just 125 in 1979.

An additional concern is the impact of the U.S. farm bill on Canadian prices. Lower U.S. loan rates for wheat and corn for the 1986/87 marketing year will have a direct impact on the initial price--a guaranteed minimum price--received by Canadian farmers. Canadian export prices for grains will follow the loan rates downward, placing additional pressure on farm income.

1986 Canadian Meat Supplies To Fall

Beef production rose in 1985, as cow slaughter remained high and slaughter weights increased. Inventories on January 1 were 4 percent below last year. Beef production is forecast to decline in 1986, as cow slaughter and slaughter weights both fall. Pork production is also expected to drop slightly, after increasing 4 percent in 1985. Poultry has shown strong gains in production and consumption the past 2 years, and the trend is expected to continue in 1986. Despite expected increases in poultry output, total meat supplies will drop in 1986.

The U.S. farm bill may also affect the Canadian livestock sector. If the dairy herd buyout puts additional beef supplies on the U.S market, both U.S. and Canadian prices could be depressed, delaying a turnaround in the Canadian cattle cycle. On the other hand, lower feed prices could encourage Canadian producers to expand output.

Latin American Coffee Production Drops

Severe, prolonged drought has damaged Brazilian coffee production. Last year, Brazil produced a record 33 million bags of coffee. USDA forecasts the crop to be harvested this summer at only 16.5 million bags; private forecasts average only 14 million bags.

Ironically, Brazil's export revenues will likely increase. Brazil will start the next marketing year with large coffee stocks--about 13 million bags. Because prices have increased sharply, the increased value of stocks will more than offset declines in export volume. Therefore, coffee earnings will likely increase more than a billion dollars.

Colombia will especially gain from the higher prices. Colombia had over 12 million bags of coffee in stock at the beginning of the present crop year. About half of Colombia's export earnings will come from coffee stocks. These windfall profits will provide an opportunity for Colombia to pull out of its current economic slump, because foreign exchange earnings and foreign reserves will increase dramatically this year.

For most Central American countries, coffee exports account for almost half of all agricultural exports. But the region as a whole is not in a good position to benefit from Brazil's production shortfall. The coffee now being harvested in Central America is forecast down 8 percent from last year because of poor weather and normal cyclical patterns. It is

doubtful, even with increased production, that these countries could take advantage of higher prices because many countries forward contract most of their production as the need for foreign exchange arises.

Costa Rica, El Salvador, and Guatemala produce about 75 percent of the region's production. Costa Rica's coffee harvest is forecast to fall 20 percent from the 1984/85 record crop. The Guatemalan coffee crop is expected to decline more than 6 percent because of poor weather. Production in El Salvador, Honduras, and Nicaragua is also expected to fall. A large portion of Nicaragua's coffee is grown in areas of political unrest, and there is concern that part of this year's crop may go unharvested.

Oil Prices May Cut Mexico's Food Imports

Mexican food imports will likely decline in 1986, partly because falling petroleum prices will pressure Mexico's financial and balance-of-payments position; 70 percent of export revenues are from petroleum products. Oil revenue losses could amount to $6 billion in 1986, compared with last year's earnings of over $14 billion. The Government has announced sharp price declines to maintain export volume. Beginning in March, oil prices are to be adjusted daily instead of being fixed monthly.

Mexico has requested $6 billion in new loans for 1986, three-quarters of which will have to come from private lenders. Before the sharp fall in oil prices, Mexico was expected to ask for only $4 billion. Total debt service is expected to approach $14 billion in 1986, which could have been covered by last year's oil earnings. Major uncertainties are how much commercial lenders will increase their exposure in Mexico and what conditions they will impose on the Government to limit deficit spending, reduce inflation, and prevent capital flight. Mexico will likely call for restructuring of its debt repayment schedule, as it did in 1984 and 1985, although falling interest rates will help ease repayments.

Good crop prospects and sluggish consumer demand will also reduce food imports in 1986. The drop in oil export revenues will lead to decreased Government spending, including expenditures on food subsidies, which could slow economic activity and dampen food demand. Record wheat and soybean crops and above-average coarse grain output will also reduce import demand.

Debt Problems Persist in Latin America

The debt burden in many Latin American countries continues to restrict possibilities for economic growth. Despite considerable improvement in trade balances and current accounts over the past 3 years, following debt restructuring and declines in interest rates, external adjustment has come at the expense of domestic growth. The increased burden of debt servicing has reduced domestic saving and investment, diminishing prospects for future economic growth.

The Baker Plan, announced in the fall of 1985, may help alleviate some of the consequences of high debt service. The plan, which may apply to 10 Latin American countries, is expected to focus on increased commercial bank credit. The plan emphasizes structural adjustment policies that encourage growth rather than stabilization policies that have induced inflation. Argentina may be the test case for the Baker plan, because that country's new economic plan announced last year has successfully reduced inflation.

Other countries have either already rescheduled debt service payments or plan to do so through International Monetary Fund agreements. Brazil, Latin America's largest debtor, has just reached agreement with commercial banks on a $31 billion refinancing package that significantly lowers interest rates. This follows Brazil's announcement of a new economic plan designed to lower inflation. Colombia and Ecuador rescheduled late last year. Chile and Venezuela signed agreements for debt restructuring early this year, although the drop in oil prices may force Venezuela to renegotiate its terms. Meanwhile, Peru has announced that it will limit debt repayments to 10 percent of export earnings.

Rescheduling has given debt-burdened countries some breathing room to improve their economies. However, trade in the Latin American region is not expected to expand greatly in 1986. Argentina's exports are expected to grow marginally, and further

cutbacks in imports are likely. Brazil's exports should increase, given the rise in coffee prices, but grain imports may also rise because of the drought. Colombia's export earnings should increase with higher coffee prices. Chile's trade balance should improve, but low copper prices will limit gains in export revenues. Venezuela's export revenues will also fall, because oil provides 90 percent of the total. [*Carol Goodloe (202) 786-1663*]

Western Europe

The EC Enlarges

After prolonged discussions and drafting of the Treaty of Accession, Spain and Portugal became members of the European Community (EC) on January 1, 1986. Agriculture was the most difficult part of negotiations. The Common Agricultural Policy (CAP) did not apply to Spain and Portugal until March 1, 1986, to allow the two countries to implement the complex legislation in the Treaty of Accession.

Spain and Portugal were particularly concerned about the possibly heavy influx of grain and livestock products from northern Europe. Conversely, a possibly heavy influx of lower cost fruits and vegetables, wine, and olive oil from Spain caused concern among French and Italian producers. The end result has been complex but still not totally resolved. Nevertheless, a 7- to 10-year transition period has been established for these products. Newly established is a concept called the supplementary trade mechanism (STM), which is a monitoring system that closely regulates trade between the EC and Spain and Portugal for "sensitive products" during the transition period.

This third enlargement will likely be the most challenging one faced by the EC. Spain and Portugal will add 3 million farms to the existing 6.8 million in the EC. Agricultural employment of 8 million in the EC-10 will be boosted by 2.9 million from Spain and Portugal. Farms are smaller, farm incomes lower, and unemployment and inflation higher in Spain and Portugal than in the the rest of the EC. Added budgetary expenditures because of enlargement will be placed on top of already heavy expenditures. The shift of power toward Mediterranean agriculture (already including southern France, Italy, and Greece) will likely make policy decisions more complicated and possibly more expensive.

Portugal's and primarily Spain's agricultural output will raise the EC's self-sufficiency in Mediterranean products, but will lower it for temperate products. Self-sufficiency ratios for fresh fruit and vegetables, processed tomatoes, and olive oil will be enhanced; however, those for grains, sugar, most meats, and dairy products will be slightly reduced. For most commodities, prices in Spain tend to be lower than in the EC-10, so adjustment to EC prices will promote output. Prices in Portugal tend to be higher than in Spain and, at times, already higher than in the EC-10.

Agricultural production in the EC has been expanding 2 to 2.5 percent annually, while consumption has grown at about 0.5 percent. This imbalance, in combination with large surpluses in world markets, has resulted in a huge buildup of EC stocks. EC stocks were valued at 10.5 billion ECU's ($9.5 billion) in 1985, concentrated mainly in grains, dairy products, and beef and veal. The EC is currently trying to dispose of these stocks to reduce storage costs, arguing unconvincingly that sales of the surpluses will not start a trade war because the EC will choose its markets with care. The cost of 3-year programs to dispose of food stock surpluses is estimated at 3 billion ECU's ($2.7 billion).

EC Price Proposals Show Austerity

On February 6, 1986, the EC Commission presented to the EC Council its price proposals for 1986/87. The overall effect of the price package is a 0.1-percent decline in farm prices in terms of ECU's for the Community as a whole. Italy, France, and Greece will experience some price increases because of their green currency exchange rates.

The Commission is proposing price freezes for grains, milk, beef and veal, mutton, sugar, and wine. Most fruit and vegetable prices will also be frozen. Price cuts of up to 6 percent for tobacco, 5 percent for olive oil, and 4 percent for butter have been proposed.

Despite the EC's increase in grain exports in 1985--with the USSR being a major outlet--grain stocks have risen to over 21 million tons, compared with 13 million just 2 years earlier. The EC Commission has proposed for 1986/87 that farmers pay a 3-percent "coresponsibility levy" to help pay for grain storage costs and export subsidies. Additional proposals are for farmers to pay a 5-percent price penalty for low-quality grains and for delivery to EC intervention centers at guaranteed prices to be allowed only after the end of April (instead of the current November date).

The EC Commission plans to ask members for a supplemental budget of 750 million ECU's ($678 million) for 1987, since regular budgetary contributions would be exhausted. Budgetary expenditures for 1986 are estimated at 34 billion ECU's ($31 billion), exclusive of any supplemental costs. According to the Commission, only if destocking is begun in 1986 and strict budgetary discipline is exercised can the supplemental budget be held to 750 million ECU's. The Commission estimates that it will cost the EC the additional 750 million ECU's ($678 million) in export subsidies because of the falling value of the U.S. dollar.

U.S.-EC Trade Relations Weaken

Trade relations between the United States and the EC have worsened in recent months. On October 31, 1985, the United States raised ad valorem import duties on pasta with egg to 25 percent and on pasta without egg to 40 percent--a significant increase from previous duties of less than 1 percent for both products. This U.S. action was in response to EC preferential treatment of citrus imports from certain Mediterranean countries.

Subsequent to the U.S. action on pasta, the EC increased its ad valorem duties on U.S. lemons from 8 to 20 percent and on U.S. walnuts from 8 to 30 percent. Pasta exports from the EC to the United States were valued at about $30 million yearly, compared with annual U.S. exports to the EC of about $1 million in lemons and $32 million in walnuts.

Effective February 15, 1986, the EC restricted imports of U.S. fertilizer, coated paper, and animal fat in retaliation for U.S. unilateral restrictions on semifinished steel from the EC. The EC's import quotas will be in effect until November 15, 1989, and will result in estimated annual import reductions of 23 percent for fertilizers, 20 percent for fats, and 8 percent for coated paper. More recently, the EC imposed a 90,000-ton quota on imports of U.S. inedible tallow. These "minor" trade skirmishes may be a harbinger of bigger retaliatory actions, as the EC attempts to move large stocks into export, and the United States, under the Food Security Act of 1985, attempts to promote exports and become more price competitive in export markets.

U.S. agricultural exports to Western Europe are forecast at $6.9 billion in fiscal 1986, a continued decline from the $7.2 billion a year earlier. Declines are expected in both the EC and non-EC areas of Western Europe, despite a 20-percent decline in the value of the U.S. dollar against most European currencies thus far this fiscal year. The value of U.S. exports of grains and preparations to the EC are expected to hold at about fiscal 1985's $1.2 billion, with increases in quality wheats offsetting a decrease in coarse grains. As for other exports to the EC, a small increase is expected in U.S. shipments of oilseeds and products, but a sharp decline is likely for cotton because of other exporters' large supplies at relatively low prices. [*Reed Friend (202) 786-1720*]

Australia

The export-dependent Australian agriculture has been hard hit by depressed world commodity prices. The real net value of output is expected to drop 24 percent in 1985/86, following last year's 13-percent decline. Farm income on family farms will average less than $A7,000 this year. Weakness in the Australian dollar has helped to support returns, but input costs, particularly interest rates, have risen sharply. Except for the beef and wool sectors, the outlook is pessimistic over the next few years.

Wheat Output Down, Exports Rising

The wheat crop just harvested was down 10 percent because of early-season weather problems. However, huge carryin stocks will allow exports to continue to expand. The Australian Wheat Board began the 1985/86

Farm income on Australian family farms 1/

Farm type	1983/84	1984/85 2/	1985/86 3/
		1000 $Australian 4/	
Wheat and other crops	41.4	17.2	-7.5
Mixed livestock-crops	26.5	18.7	4.5
Sheep	16.4	24.7	12.2
Beef	13.1	20.9	16.2
Sheep and beef	24.2	31.7	14.1
Dairy	21.3	15.2	8.8
Horticulture	3.9	9.5	6.2
All surveyed farms	23.2	19.5	6.7

1/ Includes about 90 percent farms in the Australian BAE survey. 2/ Preliminary. 3/ Forecast. 4/ In 1983/84, $A = 91 cents U.S.; 1984/85 = 77 cents; 1985/86f = 70 cents.

SOURCE: Australian Bureau of Agricultural Economics.

season with strong overseas sales, including 2 million tons to Egypt for calendar 1986 delivery, 2.55 million to the USSR for first-half 1986, and 3.3 million to China for September 1985–July 1986.

Livestock Herd Expansion Continues

Cattle producers expanded the herd 2 percent in 1985, and 4-percent growth is likely in 1986. The average saleyard price for cattle rose 14 percent between 1983 and 1985, and an 8-percent rise is expected this year. The prospect of low crop prices through the 1980's is causing farmers to emphasize livestock enterprises.

Beef and veal production may continue at about 1.3 million tons in 1986. Exports are projected to increase slightly; domestic beef consumption may decline because of large supplies of other meats.

The sheep herd grew 10 million head in 1985, to 150 million. Depressed lamb and mutton prices have limited slaughter, and producers are emphasizing wool rather than prime lamb production. This trend will strengthen in 1986. Reduced slaughterings should allow some improvement for lamb prices, but mutton prices will remain extremely low. Export markets for both mutton and live sheep are likely to remain weak because of strong competition in the Middle East and no Soviet purchases. [*Sally B. Byrne (202) 786-1611*]

Japan

U.S. Agricultural Exports Lower

U.S. farm exports to Japan could drop below $5 billion in fiscal 1986, the lowest since fiscal 1979. Lower commodity prices and declining U.S. market shares for coarse grains and cotton will contribute to the drop in value. On the other hand, U.S. soybean exports to Japan are expected to increase because of drought-reduced supplies in Brazil. Japan imported a record 208,000 tons of soybeans from Brazil last year.

U.S. sales of pork and poultry are expected to improve later in the year, aided by a weaker U.S. dollar, which has declined about 30 percent against the yen since the September 22 Group of Five meeting. U.S. beef exports to Japan are also expected to expand in line with the 1984 U.S.-Japan understanding on beef.

Despite low U.S. grain prices and a weaker dollar, the United States is facing intense competition from China, South Africa, and Argentina in the Japanese coarse grain market. As a result, the U.S. share of Japan's grain imports is expected to erode further, from 68 percent last year.

China is forecast to continue to ship large quantities of corn to Japan, notwithstanding a reduced grain harvest. Japanese importers have contracted to purchase 2.4 to 2.5 million tons of Chinese corn for delivery between May 1986 and April 1987. This follows a similar purchase agreement involving about 2 million tons for the same period last year. Japan is also likely to purchase a large volume of South African corn during April 1986–March 1987 because of favorable prices and high starch content. Japan will buy about 1 million tons from Argentina.

The United States is also facing keen competition in the Japanese cotton market. U.S. cotton exports are expected to fall sharply, and the U.S. share could drop to about 20 percent, from nearly 50 percent last year. Japan has significantly increased its purchases of Chinese cotton and has stepped up imports from other suppliers, such as Australia and

Pakistan. Uncompetitive prices for U.S. cotton is the principal reason for declining U.S. sales.

Livestock Profits Improve

Because of the strengthening yen, livestock feed prices have declined. Zennoh, Japan's largest feed manufacturer, lowered prices 4.1 percent for January-June 1986 deliveries, to 62,500 yen per ton ($347 a ton at 180 yen per U.S. dollar). Rising livestock product prices have combined with declining feed prices to bolster profit margins for Japanese livestock producers since May 1985. The yen's appreciation is expected to encourage larger-than-anticipated growth in Japan's formula feed production this year. [*Lois A. Caplan (202) 786-1611*]

Middle-Income East Asia

U.S. farm sales to middle-income East Asia are forecast to drop more than 12 percent in fiscal 1986, compared with $3.1 billion for the previous year. Brisk competition in the bulk commodity markets, slower economic growth, and lower prices are responsible for the decline. Economic growth in the region is expected to continue to slow in 1986.

U.S. Coarse Grain Sales To Increase

The volume of U.S. coarse grain sales to the region is expected to increase marginally in fiscal 1986, while lower prices will reduce the value.

U.S. coarse grain exports to Taiwan are forecast to decline because of increased use of rice for feed and Taiwan's promise to buy 200,000 tons of corn from South Africa during the year. Competition from off-grade Canadian and Australian wheat used for compound feed is expected to influence the South Korean coarse grain market this year. However, competition from Chinese corn is not expected to be as brisk as last year, so the United States should recover some of its lost market share.

U.S. Cotton Exports To Fall Sharply

The volume of cotton sales to the region in fiscal 1986 is forecast to fall sharply from the previous year. Higher U.S. cotton prices have greatly reduced the U.S. share of the region's cotton imports.

U.S. cotton exports to South Korea are expected to drop because of stiff competition from China. In spite of Taiwan's increased cotton imports during the first quarter of fiscal 1986, U.S. loan rates prevented prices from declining, thus reducing the U.S. market share. Meanwhile, Pakistan and Brazil made significant gains due to their lower prices.

China and Pakistan have captured most of the Hong Kong cotton market. The U.S. share dropped from 15 percent for July-September 1984 to only 1 percent for the same period in 1985. It is anticipated that Chinese cotton will continue to dominate the Hong Kong market in the near term.

Rice Production Decreased Marginally

In South Korea, 1985 rice production totaled an estimated 5.6 million tons. This estimate places 1985 output about 3 percent above the Government's production target, but 1 percent below last year's crop.

Taiwan's rice production in 1985 fell 2 percent to 1.98 million tons. With stocks persistently high, the Government allocated 400,000 tons of surplus rice for feed use during May 1985-June 1986 and an additional 235,000 tons for June-December 1986. Subsidized rice exports, which totaled 39,000 tons in 1985, are likely to reach at least 50,000 in 1986, with sales mainly to Nigeria and Mauritius. The 6-year Rice Diversion Program, scheduled to continue through 1989, has targeted 146,500 hectares for diversion from rice production. [*Maria-Elena Pomar (202) 786-1611*]

USSR

In January 1986, data released by the USSR's Central Statistical Administration showed that the Soviet agricultural sector achieved mixed results for overall output in 1985. Despite the estimated increase in domestic grain production, the value of total agricultural output remained unchanged from 1984.

Overall sown area declined to 210 million hectares, its lowest since 1972, with most of the decline in the Soviet grain sector.

Nevertheless, USDA estimated grain output to have increased 20 million tons and to have reached 190 million. An estimate is used because the Central Statistical Administration continues to withhold the publication of a total Soviet grain output number.

Roughly one-half of the increase in grain output came from wheat, estimated at 83 million tons, and the other half came from coarse grains, estimated at 94 million tons. As a consequence of increased domestic output, Soviet grain imports during July 1985-June 1986 are expected to decline about 20 million tons.

Many of the nongrain crops also recorded increases. Raw cotton output rose 2 percent to 8.75 million tons. Oilseed output likely exceeded 11 million tons, an almost 0.9-million-ton increase from 1984. But oilseed production was still far from the records achieved in the 1970's. Sunflowerseed output accounted for most of the rise, increasing more than 700,000 tons and reaching 5.23 million. The other primary Soviet domestic oilseed, cottonseed, is estimated to have risen 140,000 tons.

On the down side, sugarbeet output declined 3 million tons to 82 million; potatoes plummeted 12.5 million tons to 73 million; and vegetables fell 3.5 million tons to 28 million. However, production of nongrain feeds reached a record, as silage, hay, and haylage output increased.

Feed availability rose to its highest level in recent years, as the USSR continued to reduce the share of grain in its livestock feed mix. Nonetheless, feeding efficiency has not improved, and a shortage of protein in feed ration persists. Although Soviet plans called for a 5.7-percent annual growth in mixed feed production during the 1980's, output increased only 3.9 percent during 1980-1984. Increased imports of soybeans from the United States since January may signal a renewed willingness to alleviate protein shortages through foreign suppliers.

Animal inventories as of January 1, 1986, were lower than in 1985, marking the first decline in 10 years. Small increases were achieved in meat, milk, and egg output. Per capita consumption of meat and milk probably remained unchanged in 1985, while per capita consumption of eggs reportedly increased by 1.5 percent.

It is too early to assess the 1986/87 Soviet grain crop. While soil moisture in some areas appears to be better than last year, hardening conditions last fall were not as good. Nevertheless, it appears that winter grains suffered no more than average winterkill. The Soviets sowed less than 32.8 million hectares to winter grains, compared with 34 to 35 million hectares in the past. The Soviets may try to offset this reduction in winter grains by increasing spring grain area.

As in 1984/85, the bulk of Soviet purchases of U.S. grains will be corn in 1985/86. USSR imports of U.S. wheat plummeted from 6 million tons during October 1983-September 1984 to less than 3 million in 1984/85, marking the first year that the Soviet Union has violated the minimum purchase requirements of either the current or previous U.S.-USSR Grain Agreement.

The U.S.-USSR Grain Agreement is one of two treaties between the two countries in the area of agriculture. The other is the U.S.-USSR Agricultural Cooperation Agreement, which calls for for the exchange of agricultural specialists and information, such as the exchange of relevant production information on major crops, including grain. [*Tom Bickerton (202) 786-1710*]

Eastern Europe

Grain production in Eastern Europe last year was down from the 1984 high but was still the fourth successive year above 100 million tons. Overall regional oilseed production hit an alltime high in 1985. Livestock numbers fell slightly, while meat production remained fairly steady. U.S. exports to the region declined again last year, to the lowest point in the last 20 years.

Crop Results Mixed in 1985

For the fourth consecutive year, 1985 grain production in Eastern Europe topped 100 million tons. While above average at roughly 103 million tons, the harvest was about 10 percent below 1984's record output and was down in all countries except the German

Democratic Republic (GDR). The unusually severe winter and the summer drought in the southern countries hampered output. The decrease in production was mainly in the wheat and corn crops, both down more than 10 percent. The condition of winter grain crops, sown in the autumn of 1985, is generally good, with minimum winterkill and adequate soil moisture in most countries.

Total oilseed production in 1985 is estimated to have exceeded the 1984 record of 4.65 million tons. The increase is primarily due to the record rapeseed crop in Poland, more than 15 percent. Sunflowerseed production was up slightly; however, soybean output declined because of the drought in Romania and Yugoslavia.

Livestock Sector Suffers Setbacks

January 1986 livestock numbers showed an overall decrease due to the harsh 1984/85 winter, energy shortages, increased production costs, lower feed supplies in the southern countries, and official policies to minimize feed imports. Czechoslovakia, Hungary, and Yugoslavia experienced the most significant percentage decreases in total livestock numbers. Overall livestock production in 1985 remained about the same, but exports of livestock products increased to maintain export revenues in the face of falling world prices for meat. In 1986, livestock numbers should show a slight upturn as domestic feed supplies recover and livestock regulations are adjusted.

Austerity Measures Continue

In keeping with the policies of reducing foreign debts and balancing trade, most countries of Eastern Europe achieved another hard-currency surplus last year by strictly enforcing domestic austerity programs. A deterioration of food supplies has accompanied these belt-tightening measures and has led to recurrent food shortages, rationing of foodstuffs, and price increases. Meat, sugar, and butter were rationed in Romania, bread in Bulgaria, and meat in Poland. Moreover, to reduce the State's burden of supporting food prices, consumer prices were increased last year in Bulgaria, Hungary, Poland, and Yugoslavia.

However, in the GDR, basic food prices have remained unchanged since the late 1950's. Continuing considerable subsidization of basic food prices in 1985, the GDR earmarked 46 billion marks ($12 billion)--the largest sum ever, equal to 20 percent of the State budget---this year for the subsidization of foodstuffs and other public goods and services.

U.S. Exports Lowest in Two Decades

U.S. agricultural exports to Eastern Europe dropped nearly 40 percent last year, from $757 million in 1984 to $479 in 1985--the lowest in the last two decades. U.S. agricultural exports decreased to all countries, except Bulgaria, as overall farm imports by the region fell. Poland, the GDR, and Romania purchased roughly 50 percent less from the United States than they did in 1984. The U.S. share of the market as a whole, however, did not appear to change significantly.

U.S. agricultural exports to the region will remain about the same in 1986, as the countries continue to rely on their own production to supply domestic needs. Furthermore, in U.S. fiscal 1986, Yugoslavia and Hungary are not likely to use the full $122 million in CCC credits at their disposal. In fiscal 1985, Yugoslavia only used 24 percent of the total credit--$170 million--it was allocated. [*Christian J. Foster (202) 786-1710*]

China

China tallied up another good crop year in 1985, despite lower grain and cotton production. The output of livestock, oilseeds, fruit, vegetables, and other crops rose. The diversity and quality of food supplies improved, and consumption rose again during 1985. Prices of many foodstuffs, such as meat, rose sharply. Large stocks maintained grain consumption, reduced imports, and continued to support large coarse grain and soybean exports.

Grain Production Falls

Grain output declined about 7 percent in 1985. Grain area, which has been falling since 1978, dropped an additional 4 percent. Wheat

output fell, although only marginally, to 86 million tons. Production of rice and coarse grains dropped sharply, by 7.9 and 11.5 million tons, respectively. Uncertain about price and marketability, farmers shifted from rice and coarse grains to other crops. This brought about a 3.3-million-hectare expansion in cash crop acreage, changing the ratio between cash crop and grain crop areas from 17:83 in 1984 to 21:79 in 1985. China's leadership is now concerned about the fall in production and, particularly, about the decline in grain area. In response to these concerns, grain production will receive a higher priority in 1986. Plans for 1986 call for grain production to equal the record 1984 harvest. Area is to increase 2 million hectares.

Oilseed Production Up

Because many areas shifted from grain and cotton to oilseeds, peanut, rapeseed, sunflowerseed, and sesame output showed substantial gains. However, soybean output dropped to 9.5 million tons. Total oilseed output rose to 32.4 million tons, or 4.2 percent, while the sown area increased about 2 million hectares, or 9.5 percent, from 1984. The Government continued to guarantee purchases of these crops at premium prices. Because of continued area expansion, oilseed production should rise still more in 1986.

Imports Down, Exports Continue

With a bumper wheat crop, wheat imports in 1985/86 are estimated to fall to 6.5 million tons. The U.S. share of wheat imports is expected to be well below the 2.4 million tons shipped in 1984/85.

Substantial Chinese exports of oilseeds, coarse grains, and cotton will continue in 1986. This is due to the growing diversification of crop production and an increasing array of agreements with trading partners, most notably the Soviet Union and Japan.

Livestock Sector Gains

The livestock sector made substantial gains in 1985. Total meat production, including pork, beef, and mutton, rose to 16.5 million tons, an increase of about 7 percent from 1984. Pork production, which accounts for over 90 percent of total meat output, rose to 16.5 million tons. Egg, milk, and poultry production also increased by a big margin. The Government relaxed price controls on pork during 1985, so higher prices for quality meat were an important reason for the growth in output.

Consumers now have not only increased meat supplies, but also a wider variety of animal protein products available. Milk and egg output has risen steadily in recent years. With increased output of manufactured feed, scheduled to rise from 12 million tons in 1984 to 50 million in 1990, livestock production will continue its rapid growth in coming years. [*Victoria M. Morton (202) 786-1616*]

South Asia

Indian Food Grain Outlook Improves

India's 1985/86 rice crop is now estimated at a record 61 million tons, and 1986 wheat output is likely to be a record. However, poor monsoon rains in eastern and central India have reduced coarse grain output about 5 percent. Procurement of rice is likely to match last year's record, and total Government food grain stocks are likely to be about 30 million tons, 9 million above target, by July 1986. Wheat stocks are forecast to remain well above target, despite increased distribution through open market sales and targeted programs.

In February, the Government announced price increases for a number of items, including fertilizer and food grains. The price hikes are intended to reduce outlays on subsidies that have risen sharply because of increases in fertilizer use and food grain stocks. Also, higher open market prices for wheat may help reduce stocks by lowering procurement in price support operations.

Edible Oil Import Forecast Reduced

India's 1985/86 edible oil imports are now estimated at 1.1 million tons, 17 percent below 1984/85 and 35 percent below 1983/84. An improved production outlook for rapesced, higher-than-expected stocks of imported oils, and policy adjustments that will reduce imported oil use in the vanaspati

(hydrogenated vegetable oil) industry have led to the lower forecast. Soybean oil will likely account for most of the decline because of lower relative palm oil prices and reduced use of soybean oil in vanaspati.

Wheat and Cotton Improve in Pakistan

Poor early-season supplies of irrigation water reduced 1985/86 rice output to about 3.2 million tons, but good winter water supplies and higher prices will likely push wheat production to a record in 1986. Wheat import estimates for 1985/86 have been reduced, and no imports (except for Afghan refugee relief) will likely be needed in 1986/87. Excellent growing conditions and further gains in input use have boosted the 1985/86 cotton forecast to 5.5 million bales, 20 percent above last year's record.

Record production of cottonseed oil is forecast to cause only limited growth in edible oil imports, from 664,000 tons in 1984/35 to about 700,000 in 1985/86. Soybean oil imports are expected to rise because of the availability of concessional and credit financing for the U.S. product.

Record Crops in Bangladesh and Sri Lanka

Harvests of wheat and rice in Bangladesh continue to be forecast at records in 1985/86 because of excellent weather. Therefore, food grain import requirements are expected to fall to 1.5 million tons, with wheat purchases dropping 25 percent and rice purchases 90 percent.

Sri Lanka's 1985/86 rice crop is now estimated at a record 1.79 million tons, 9 percent above last year, as good weather and input supplies offset the disruptive effects of civil unrest. As a result, Sri Lankan wheat imports are expected to continue to show little growth in 1985/86. [*Maurice R. Landes (202) 786-1614*]

Southeast Asia

1986 Indonesian Rice Crop To Be Record

Indonesia harvested a bountiful 1985 rice crop of 26.3 million tons, 8 percent larger than 1984's previous record. Favorable weather and increased rice area were major factors determining the higher production. The nation's 1985 rice self-sufficiency was highlighted by estimated exports of 400,000 tons, against imports of only 34,000. In 1984, Indonesia imported 387,000 tons of rice, still sharply below its world-leading average of 1.9 million during 1978-1981.

Another record harvest is anticipated in 1986. Based on a generally favorable monsoon season, the wet-season harvest will be large. The Government's decision not to increase the 1986 rice support price probably reflects an effort to reduce still high Government stocks, which totaled 2.8 million tons on January 1.

Malaysian Palm Oil Output Surges

Malaysian palm oil production expanded 11 percent to 4.1 million tons in 1985, while crude palm oil prices trended sharply lower, following near-record highs early in the year. In 1986, an estimated 65,000 hectares of new producing area will contribute to a palm oil output of 4.6 million tons. Crude and processed palm oil stocks of 845,000 tons on January 1 were record high and 86 percent above a year earlier. The magnitude of Malaysia's palm oil exports in 1986 will be determined largely by demand from India, Pakistan, and the Soviet Union.

Thailand Reacts to U.S. Food Security Act

Thailand has responded to the threat of increased competition from the United States by removing more export controls on rice. Exporters are no longer required to maintain minimum stocks, and the export taxes on all but the highest grades of rice have been removed. Thailand has entered into barter arrangements with large importers, such as Brazil. Domestic policies to support farm prices have been abandoned. Thai export prices have fallen slightly since the new U.S. rice export program in the Food Security Act became law in late December.

Philippines Receive Export Bonus Wheat

The Philippines became the first Asian recipient of the USDA Export Enhancement Program (EEP), which offers the Philippines 100,000 tons of wheat flour and 150,000 tons of wheat. While the new Aquino administration has transferred the wheat licensing agency to the Ministry of Agriculture

and Food, most of the EEP is still expected to be fully utilized. Additional wheat flour imports are unlikely, with domestic wheat prices expected to fall and more closely reflect world prices than in the past. Wheat imports and consumption are expected to gradually resume their pre-1983 upward trend, which, in addition to some changes in the wheat varieties demanded, will likely benefit U.S. wheat exporters. [*Jitendar S. Mann (202) 786-1614*]

Sub-Saharan Africa

Bumper Harvests in 1985/86

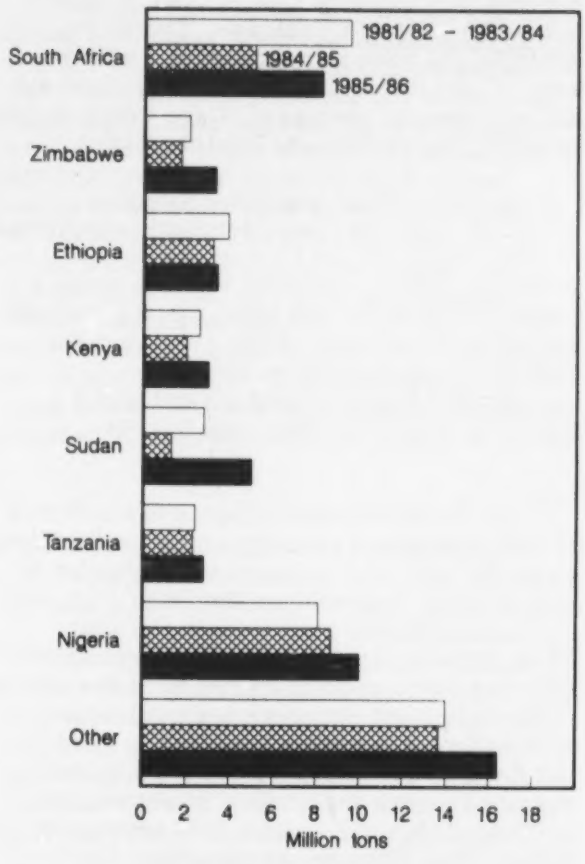
Crop production increased substantially in Africa south of the Sahara during 1985, reversing the dismal performances of 1983 and 1984. Cereal production jumped a third, and the output of coffee and cocoa well exceeded 1981-1983 averages. As a result, in 16 of 20 countries with national food emergencies last year, domestic cereal supplies have returned to normal. However, food shortages persist in some areas. The traditional agricultural exporters face mixed prospects, with strong production but soft world markets. Coffee markets are the exception, as producers will benefit from high world prices.

Cereal Output Expands

Sub-Saharan Africa's combined output of wheat, rice, and coarse grains totaled 60 million tons in 1985, a third above the 1984 harvest and 13 percent above the 1981-1983 average. As a result, total cereal imports are expected to fall from 11.7 million tons in 1985 to 10.3 million in 1986. Exportable surpluses have increased. Coarse grains, which accounted for 87 percent of total cereal output, increased 38 percent from 1984 to 1985. Gains were largest in East and Southern Africa.

At 3.4 million tons in 1985, wheat production was 8 percent below the 1981-1983 average. South Africa, the largest wheat producer, suffered a 9-percent decline in output between 1984 and 1985 because of bad weather. However, this was nearly offset by increases in other countries. Kenya's wheat harvest tripled, while Zimbabwe's more than doubled.

Sub-Saharan Coarse Grain Output Rises



The region's rice output increased 8 percent to 4.6 million tons in 1985. In West Africa, rice output rose from 2.3 million in 1984 to 2.6 million tons in 1985, with the Ivory Coast and Nigeria posting significant gains. In Madagascar, the largest producer, output increased 2 percent to 1.4 million tons.

Sub-Saharan Africa still depends heavily on imports for its wheat and rice supplies. In 1985, 6.1 million tons of wheat and 2.4 million tons of rice were imported. However, in 1986, wheat and rice imports are likely to decline because of improved coarse grain supplies.

Food Shortages To Continue

In several countries, the recovery from last year's famine is not complete. In Ethiopia, Angola, and Mozambique, national food emergencies continue. In each, civil turmoil has reduced output and frustrated efforts to provide food aid to people in need.

Although Ethiopia's cereal production rose 10 percent to 5.5 million tons in 1985, it is still below the 1981–1983 average. Therefore, Ethiopia will have to import over 1 million tons of cereals in 1986, both through food aid and commercial purchases. Cape Verde is also experiencing exceptional food shortages.

In Sudan, Chad, and other Sahelian countries, national cereal production improved in 1985, but localized food shortages continue. Sudan harvested 5 million tons of sorghum and millet last year, topping the 1981 record by 30 percent. After 1981, drought took an increasing toll on Sudanese agriculture, dropping sorghum and millet output to only 1.3 million tons in 1984.

The rapid recovery in Sudan is attributed to well distributed rainfall, exceptional efforts to supply seed, and an enormous expansion in area planted, primarily on the large mechanized farming schemes in the East. These schemes are controlled by an economic minority who own tractors and have the ability to hire labor and obtain agricultural inputs, such as fuel. Therefore, despite the gains in the East, an estimated 4 million traditional peasant farmers and nomads in western and northern Sudan will require food assistance during 1986. They are too destitute to purchase surplus grains from producers in the East.

Sudan's weak and financially troubled transitional Government is not able to provide food relief without foreign assistance. Yet, international donors are reluctant to bring food aid into the country to feed the hungry because it would only add to the large food surpluses. Efforts to redistribute food internally are hindered by speculators and by rate gouging on the part of private truckers. Consequently, people could go hungry, even though there is more than enough food to feed everyone.

Corn Suppliers in Need of Markets

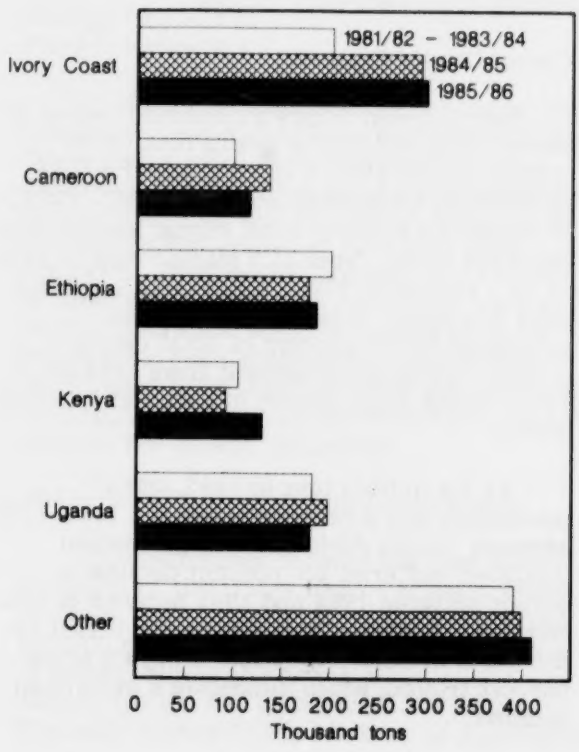
Corn production in Sub-Saharan Africa increased 34 percent because of improved weather, with South Africa, Zimbabwe, and Kenya--traditional exporters--posting the largest gains. South Africa's corn output grew from 4.4 million tons in 1984 to 7.4 million in 1985, although it is still below pre-1983 levels. The 1986 crop is estimated at 8.5 million tons.

In Kenya, as well as Tanzania, better weather plus producer price increases contributed to 1985 output growth of 56 and 25 percent, respectively. Kenya, South Africa, Zimbabwe, and Malawi hold sizable exportable surpluses of corn. But current world supplies exceed expected consumption by 25 percent, and prices have fallen 10 percent since January 1985. Markets in neighboring countries are small at best. As a result, these countries face poor export prospects for their corn surpluses.

Prospects Favorable for Coffee Producers

Sub-Saharan Africa's highest valued agricultural exports are coffee and cocoa. Coffee production in 1985/86 is an estimated 1.3 million tons (22 million 60-kilogram bags), slightly above 1984/85 output and 12 percent

Africa's Coffee Output Up Slightly



more than the 1981/82-1983/84 average. In Ethiopia and Kenya, output increased as their coffee sectors recovered from the 1984/85 drought. Cameroon's 1985/86 crop is below 1984/85's record 137,000 tons (2.3 million bags) because this is an off-year in its production cycle. The Ivory Coast--Africa's largest coffee producer--posted slight gains to 300,000 tons (5 million bags).

Coffee export prospects are favorable, because prices in January 1986 were 70 percent higher than in January 1985 and the International Coffee Organization's export quotas have been suspended. The Ivory Coast and Kenya increased sales, and high prices will boost export earnings. Other producers, including Ethiopia and Cameroon, will benefit from the higher prices, but tight supplies will not permit significant increases in export volumes. The continuing civil war in Uganda has disrupted exports from that country, as well as from Burundi, Rwanda, and Zaire, which rely on transportation through Uganda to the Kenyan Coast.

Little Change in the Cocoa Market

In 1985, Africa's cocoa production dropped slightly to 950,000 tons. Four West African countries account for nearly half of the world's cocoa output. In the Ivory Coast, output was just below 1984's record 550,000 tons. Good weather and increases in producer prices were responsible for the Ivory Coast's strong improvement in 1984 and 1985.

In the Cameroon, good weather and improved supplies of inputs increased output. In Ghana and Nigeria, cocoa production has been going down in recent years because of poor management practices. However, Ghana's output did increase 10 percent in 1985.

Until recently, world cocoa markets were stable. But in early March, the Ivory Coast signaled its opposition to renewal of the International Cocoa Agreement. This threatens price stability since the International Cocoa Organization buffer stocks could be released onto the commercial market. The Ivory coast recently indicated that it would participate in July negotiations for a new agreement. Thus, the cocoa export earnings picture for African producers is uncertain in 1986.

Cautious Optimism for 1986 Crop Output

The performance of Africa's agriculture during 1985 underscores the importance of weather where semi-arid conditions and traditional farming practices are widespread. Assuming satisfactory rainfall, 1986 should provide further improvement in crop output, allowing continued recovery from recent famines. An adjustment to market conditions, with subsequent shifts from cereals to other crops, such as oilseeds, is expected in 1986. Unreliable rainfall and uncertain market conditions are responsible for sizable year-to-year changes in national food supplies and export earnings. Thus, 1985 should be viewed as a peak on a very jagged horizon. [*Stephen M. Haykin (202) 786-1680*]

WORLD TRADE AND FOOD POLICY

Canada-USSR Grain Agreement

Canada and the Soviet Union renewed their 5-year grain agreement in January. The new agreement provides that Canada will supply 25 million tons of wheat and barley beginning August 1, 1986, through July 1991. The Soviet Union is not required to make any minimum annual purchase under the new agreement, although the previous one specified 5 million tons. Traditionally, the agreement has been 80 percent in wheat and 20 percent in barley. Price is is determined at purchase, with credit available.

Canada-Brazil Wheat Agreement

Canada and Brazil renewed their 3-year grain agreement in January 1986. The new agreement provides that Canada will supply up to 4.5 million tons of wheat during 1986-1988. Brazil will make minimum purchases of 750,000 to 1.5 million tons annually, less than the previous agreement's annual minimum of 1 to 1.5 million tons. Canadian credit of Can$1 billion for 3-year terms is available. Brazil has traditionally purchased Canadian No. 3 western red spring wheat.

GATT Committee Deciding MTN Agenda

The agenda for multilateral trade negotiations (MTN) is to be established by a Preparatory Committee of the General

Agreement on Tariffs and Trade (GATT). The committee, which is to meet from mid-January to mid-July 1986, was created at the 41st Session of the GATT, held November 25-28, 1985.

The committee noted that a priority subject for discussion by the developing countries will be "standstill and rollback" issues, concerning the protectionist trade measures raised by countries to improve their negotiating stance during an MTN. In addition to traditional standstill and rollback commitments to continue trade barrier liberalization during the upcoming MTN, the developed countries pledged at the 1983 OECD Ministerial meeting to use the economic recovery following the recent world recession to resist and reverse protectionist trends. Developing-country interests in trade barrier standstill and rollback issues in the preparatory committee are consequently heightened in light of the OECD pledge.

Another developing-country priority will be safeguards used by importing countries to restrict trade when domestic firms are overwhelmed by import competition. One suggestion made to achieve a standstill in agricultural trade was to maintain existing import access during the MTN.

Priority subjects for the United States include bringing world agricultural and services trade under more effective GATT discipline and improving overall GATT procedures--particularly the dispute settlement mechanism that affects all trade.

In committee discussions, the GATT Director-General pointed out three problem areas needing procedural improvement. One, vague wording of some important GATT regulations has hindered dispute resolution. Two, delays by members in forming dispute settlement panels and their terms of reference slow the settlement process. Three, refusal of members to accept panel reports ruling against them also prevents effective trade regulation. However, he stressed that the vast majority of panel findings are, in fact, implemented.

Export Initiatives in Food Security Act

Several export initiatives are included in the trade title of the Food Security Act of 1985 and the Food Security Improvements Act of 1986.

Export credit and credit guarantee programs offered by the Commodity Credit Corporation (CCC) are supplemented by a new intermediate credit guarantee program. The existing short-term credit guarantee program (on credit of up to 3 years) is authorized at $5 billion annually through fiscal 1990, the same level as in fiscal 1985. Under the Gramm-Rudman-Hollings provisions, however, this was reduced to near $4.8 billion for fiscal 1986. The intermediate credit programs are amended to allow intermediate credit guarantees of 3 to 10 years. For the purposes of guaranteeing export sales, the CCC must make available at least $500 million through fiscal 1988 and not more than $1 billion in fiscal years 1989 and 1990. This was reduced to $480 million in fiscal 1986 because of Gramm-Rudman Hollings legislation.

Under a targeted assistance program, at least $110 million, or an equal value of CCC commodities, must be used annually through fiscal 1988 for the specific purpose of countering or offsetting foreign subsidies, import quotas, or other unfair trade practices. At least $325 million must be used in fiscal years 1989-90. Priority assistance will be given those agricultural commodities that have been found to have suffered from unfair trade practices under Section 301 of the Trade Act of 1974, or which have suffered from retaliatory actions related to such a finding.

Under another program, at least $1 billion and at most $1.5 billion in CCC commodities shall be provided through fiscal 1988 to exporters and others at no cost to encourage the development, maintenance, and expansion of U.S. agricultural export markets. The program is to help make U.S. commodities more competitive by offsetting subsidies or other unfair trade practices, the adverse effects of price support levels temporarily above competitors' export prices, or fluctuations in exchange rates.

Through fiscal 1988, not less than 150,000 tons of CCC dairy products are to be sold annually for export at prices set by the Secretary. Sales are to involve at least 100,000 tons of butter and 20,000 tons of cheese annually.

Section 416 of the Agricultural Act of 1949 is amended to mandate a pilot barter program for strategic materials for at least two countries in fiscal 1986 and 1987. [*Ted Wilson and Mark Smith (202) 786-1688*]

COUNTRY BRIEFS

Argentine Harvests Underway

Assuming normal weather during the harvest season, forecasts for Argentina's 1986 harvest indicate 13 million tons of corn--up 2 million tons from a year earlier--and 4.5 million tons of sorghum--down 1.4 million tons. The soybean crop is expected to be 7.6 million tons, an increase of 1 million, while sunflowerseed output will likely rise about 100,000 tons to 3.5 million.

Corn, sorghum, and sunflowerseed harvesting got underway in March. The soybean harvest begins in April. Late-planted sunflowerseeds are also harvested in April, since these are planted further south, where the growing season is shorter. Late-planted soybeans, which are double-cropped with wheat, are harvested in May.

Based on these production forecasts, exports of coarse grains, oilseeds, and oilseed products are expected to increase. However, because of a sharp drop in wheat production and exports, total agricultural exports will likely fall more than 13 percent in 1986. [*Jorge Hazera (202) 786-1665*]

Countertrade Resumes in Nigeria

In October 1985, a month after coming to power, the new Government of Nigeria sharply reduced its use of countertrade to exchange petroleum for consumer goods and food. Subsequent Government reports indicated problems in determining the value of imports and in adjusting to changes in international prices. During January 1986, however, the billion-dollar countertrade agreement with Brazil was resumed, and the Countertrade Renegotiation Panel was set up to revive suspended contracts with France, Austria, and Italy. The panel supports the revised strategy to conserve foreign exchange following declines in petroleum prices and the breakoff in December 1985 of 2 years of negotiations for a loan from the International Monetary Fund.

Nigeria's return to countertrade is being pursued cautiously because of the experience with valuing and pricing last year. It is emphasizing government-to-government agreements and is attempting to include export of Nigerian agricultural products, such as cocoa and rubber. Nigeria continues to limit agricultural imports, although French sugar and Brazilian cotton and sugar were important components of original countertrade contracts. [Carl Mabbs-Zeno (202) 786-1680]

Japan Lowers Plywood Tariffs

During U.S.-Japan MOSS (Market Oriented Sector Selective) consultations in January 1986, Japan announced it would reduce its tariffs on softwood plywood to 12.5 percent in April 1987, and further to 10 percent in April 1988. Tariffs on hardwood plywood will also be reduced in two stages, to 15 or 10 percent, depending on thickness.

Japanese imports of plywood were worth $27 million in 1984, with 9 percent from the United States. In previous negotiations, the United States had requested the earliest possible reductions and eventual elimination of Japan's tariffs on plywood and other processed wood products. Most of U.S. forestry trade with Japan is in raw materials, such as logs and wood chips, but the U.S. industry believes reduced tariffs on processed products will encourage substantially greater U.S. exports in the short and long term. [*Lois A. Caplan (202) 786-1611*]

WORLD FOOD OUTPUT, CONSUMPTION, AND NEEDS

Record Food Production in 1985

Production of world food products hit a record during 1985, slightly above 1984 output. U.S. food output increased nearly 5 percent, about 1 percent above the 1982

World indices of food production

Country	1980	1981	1982	1983	1984	1985 1/	1985/1984	Growth rates 2/ 1950-85	Growth rates 2/ 1976-85
				1976-78 = 100				Percent	
Developed	105	108	110	103	113	113	0	1.8	1.4
United States	103	113	114	94	110	115	4.6	2.1	1.2
Canada	103	113	119	114	110	113	2.7	2.1	2.0
Japan	91	92	94	94	100	102	2.0	.6	-.1
Rep. S. Africa	106	120	107	92	101	108	6.9	3.1	.5
Oceania	96	104	95	116	112	111	-0.9	2.7	1.5
Western Europe	112	110	113	110	119	116	-2.5	1.9	2.0
Developing	107	112	114	117	121	125	3.3	2.9	2.7
S. and Cent. America	112	115	117	115	121	125	3.3	3.4	2.7
S.E. Asia	116	124	127	132	139	143	2.9	3.5	4.8
South Asia	102	110	108	123	123	124	.8	2.6	3.1
Middle East	104	105	114	113	115	120	4.3	3.2	2.3
North Africa	109	104	115	113	119	128	7.6	2.1	2.6
Sub-Sahara 3/	108	112	113	107	111	117	5.4	2.0	1.7
Centrally planned	101	102	109	113	118	118	0	2.8	2.2
USSR	94	91	97	102	102	103	.9	2.8	.4
Eastern Europe	97	102	104	104	111	109	-1.8	2.3	1.1
China	118	123	135	145	154	153	-.1	3.3	5.7
World	105	107	111	110	117	118	.9	2.4	2.1

1/ Preliminary. 2/ Annual compound growth rates computed by least squares method. 3/ Excludes Republic of South Africa.

record. Soviet food output sustained the same level of the past 2 years and about 3 percent lower than the 1978 record. After 3 consecutive years of adding over 10 percent more food products, China's production slipped slightly from the 1984 high. Food production in both Eastern and Western Europe was about 2 percent below the 1984 record. Most other regions of the world increased food output.

After several drought years and civil strife that retarded agricultural activity, food production in Sub-Saharan Africa reached a new high of more than 7 percent above the past 3-year average. Ethiopia, with a very low food supply in 1984, produced in excess of 5 percent more last year, but was still slightly below the past 3-year average. North African countries increased average food output nearly 8 percent.

World food production has gained approximately 2 percent annually over the past 10 years. The developing countries as a group have added 2.7 percent more per year, while the developed and centrally planned groups increased output 1.4 and 2.2 percent, respectively.

Per Capita Food Output Sustained

World population at mid-1985 was approximately 4.86 billion, up more than 1.6 percent, or 78 million, from a year earlier. Increases in population offset the estimated 2-percent gain in world food production and kept the per capita level of available food about the same as the 1984 record.

Per capita food production has declined over the past 10 years in 50 percent of the 111 countries reported, including 29 in Africa. The world has maintained a slight positive growth rate (0.4 percent) in per capita food production over the same period, primarily because of the large increase in China in each of the past 4 years. World output per capita, excluding China, declined 0.2 percent annually.

Food Composition Changing

The composition of food production has made some shifts over the past 35 years in various regions of the world. Although slight changes in world food composition have occurred in some regions, cereals, oilseeds, and meats have increased significantly, while root crops and milk have decreased.

World indices of per capita food production

Country	1980	1981	1982	1983	1984	1985 1/	1985/1984	Growth rates 2/ 1950-85	Growth rates 2/ 1976-85
				1976-78 = 100			Percent		
Developed	103	105	106	99	107	107	0	0.8	0.7
U.S.	99	108	108	89	102	107	4.9	.9	.2
Canada	100	108	113	106	102	104	2.0	.4	.9
Japan	88	89	91	90	95	96	1.0	-.4	-.8
Rep. S. Africa	99	109	95	79	85	89	4.7	.6	-1.9
Oceania	93	100	89	107	103	101	-2.0	.9	.3
W. Europe	111	108	112	108	117	113	-3.5	1.3	1.7
Developing	100	102	101	101	102	103	.9	.5	.3
S. and Cent. America	104	105	104	100	103	103	0	.8	.4
S.E. Asia	108	113	113	115	119	120	.8	1.2	2.5
South Asia	96	101	96	107	105	104	-1.0	.4	.8
Middle East	96	94	99	96	95	96	1.0	.4	.5
North Africa	100	92	99	95	97	102	5.2	.2	-.3
Sub-Sahara 3/	99	100	98	90	91	93	2.2	-.5	-1.2
Centrally planned	98	98	103	106	109	108	-1.0	1.1	1.0
USSR	92	88	93	97	96	96	0	1.5	-.4
Eastern Europe	95	99	101	100	107	104	-2.8	1.6	.6
China	114	117	126	134	142	140	-1.4	1.4	4.5
World	99	100	102	100	104	104	0	.6	.4

1/ Preliminary. 2/ Annual compound growth rates computed by least squares method. 3/ Excludes Republic of South Africa.

Over the past 35 years, U.S. cereal production has increased from about 23 to 28 percent of all U.S. foods, and oilseeds from 4 to 11 percent, while milk decreased from 19 to 13, and eggs from nearly 7 to 4 percent.

Asia, dominated by cereal production, reduced the proportion of cereals for a higher percentage of meats, primarily chicken. European countries have also increased their share of meat products and reduced by half the share of root and tuber output.

Sugar's share of total food production has gained slightly in every region throughout the world, but pulses, and roots and tubers, traditional staple food products, have decreased. Future sugar output is not expected to increase as it did in the past, because of the increased use of other sweeteners. The higher growth of food products such as oilseeds and meats indicates a shift in demand to more high-protein and high-valued products to replace some of the traditional root and pulse crops.

Regional Shares of Output Shifting

The United States is the leader in oilseed production, contributing 34 percent of the world's total, and is also a large producer of cereals and animal products. Nevertheless, U.S. meat production has fallen from 26 percent of the world's total in the 1950's to 18 percent in 1985. Milk production has dropped from 22 to 14 percent, and eggs from 38 to about 15 percent. Animal product production in the Soviet Union, China, and much of Asia is accounting for an increasing percent of total food output.

During 1983-1985, the United States produced about 14 percent of the world's food output, down from 18 percent 35 years ago. But it had only 5 percent of the world's population. In contrast, South and East Asia combined and China each produced about the same share of the food supply as the United States but had around one-third and one-fifth of the world's population.

Many factors beyond weather contribute to production changes. Higher incomes; relationships between various foods and health hazards; availabilities of production inputs and markets; changes in price relationships among commodities; consumer preferences; and Government policies, such as trade restrictions, price supports, acreage

allotments, and marketing quotas, have contributed to shifts in country and regional production patterns. [*Boyd Chugg (202) 786-1624*]

U.S. Cereals Buttress Food Availability

Per capita world food production has generally increased over the past decade, even in many of the developing countries where population has expanded very rapidly, in spite of notable exceptions that include Sub-Saharan Africa. What has been the U.S. contribution to this increased availability of food? The United States is the major producer and exporter of cereals, which make up about 30 percent of total world food production. It produces 19 percent of all cereals, but needs only 63 percent of this production for domestic use. The remainder is exported or goes into stocks.

Cereal imports from the United States have significantly increased the availability of food in the developing countries. These countries consume 33 percent of the cereals in the world, 5 percent more than their share of world production.

The developing countries have been a rapidly growing market and presently import 46 percent of U.S. cereal exports. The centrally planned and developed countries, declining markets for U.S. cereals in recent years, presently import 21 and 27 percent, respectively.

The large and growing markets for U.S. cereals in the developing countries have not offset the loss of markets in the developed and centrally planned countries. The net loss of overseas markets, combined with increased U.S. production, has caused rapid accumulation of food surpluses in the United States. [*Gary Vocke (202) 786-1705*]

World cereal production and utilization, 1976-85

Country	Production	Utilization	Imports from U.S.	Stocks
	Percent change 1/			
World	2.2	2.0	-0.2	2.5
Developing	2.8	3.2	4.8	1.3
Centrally planned	1.4	1.6	-1.6	-7.2
Developed	2.4	1.2	-4.6	4.1
U.S.	2.1	2.2	---	17.8

1/ Annual compound rates.

Meat's Importance in World Diets

The proportion of meat in any individual's diet varies greatly among people within a region and among regions. A variety of factors---economic, religious, climatic, social, and health--play a critical role in consumption patterns. A country's or region's consumption is not necessarily a typical diet, rather it is a melding into a simple average the consumptions of those who, for various reasons, eat vastly different amounts and types of food. However, the use of averages does not prevent comparisons between countries or regions, or the painting of a picture of relative dietary differences.

Pork Leads Caloric Meat Consumption

One measure of diets is the calorie, which expresses the heat- or energy-producing value of foods. An analysis of caloric consumption will not give comparative volumes of meat consumed, rather comparative energy values.

For example, a pig carcass in the United States produces more calories per unit of weight than a beef carcass. Fat's higher caloric value and how the carcasses are trimmed account for much of the difference. Therefore, while more beef is consumed than pork, the caloric value of pork is higher. Likewise, chicken meat, with its low fat content, accounts for a proportionally lower share of the meat calories than of pounds of meat consumed.

In the United States, an average of 3,641 calories from all food was consumed per person per day during 1979-1981. Few countries surpassed this, the majority of them in Western Europe. Europe, on average, consumes 3,454 calories, followed by the USSR at 3,360. South Asia and Africa (excluding North and South Africa) are the lowest consumers, with 2,048 and 2,186, respectively. Because of the large populations in the countries with lower average caloric consumption, the average for the world is only 2,361.

Daily per capita caloric consumption, 1961-71 average

Country	Total	Vegetable products	Animal products	Total meat 1/	Beef 2/	Pork	Lamb 3/	Poultry	Other 1/
	Calories				Percent of total meat				
North America	3,612	2,298	1,314	741	38.1	46.4	0.7	13.0	1.9
U.S.	3,641	2,325	1,316	750	38.1	46.1	.7	13.1	2.0
Europe	3,454	2,342	1,115	478	23.7	57.9	3.7	9.4	5.3
EC-10	3,480	2,296	1,189	532	25.6	55.7	4.0	8.5	6.1
Other W. Europe	3,295	2,303	992	462	19.7	61.5	3.6	10.7	4.5
Eastern Europe	3,495	2,459	1,036	376	21.0	61.6	2.9	11.1	3.4
USSR	3,360	2,489	871	311	55.9	26.0	4.5	9.6	3.9
Oceania 4/	3,146	2,007	1,139	616	41.6	22.3	22.4	10.4	3.3
Latin America	2,644	2,191	452	214	56.4	15.8	2.4	15.8	5.2
Asia	2,335	2,130	205	102	9.2	72.9	5.8	8.1	3.9
Middle East	2,936	2,543	393	136	20.3	.9	46.2	25.5	7.2
South	2,048	1,935	113	11	24.9	8.1	40.7	13.1	13.2
Japan	2,852	2,263	590	181	14.4	59.1	2.8	18.2	5.5
China	2,426	2,180	245	184	6.0	84.2	2.1	4.9	2.7
East & S. East	2,499	2,343	156	71	17.5	58.2	4.5	13.6	6.1
Africa	2,389	2,208	181	76	46.7	9.8	16.2	12.2	15.0
North	2,916	2,685	232	73	48.4	.6	21.1	18.5	11.3
South	2,861	2,432	429	225	53.3	12.9	14.2	13.3	6.2
Other	2,186	2,045	141	63	43.8	11.9	15.4	9.6	19.3
World	2,361	2,012	349	156	27.1	53.1	5.4	9.7	5.0

1/ Includes offal. 2/ Includes veal. 3/ Includes mutton and goat meat. 4/ Australia and New Zealand.
SOURCE: FAO, Food Balance Sheets, 1979-81 average.

In the meat and offal category, the majority of the calories come from pork, at 53 percent; followed by beef and veal, 27 percent; poultry meat, 10; lamb, mutton, and goat, 5; and other meat and offal, 5 percent.

While pork's share of the meat calories is very high in China, Japan, East and Southeast Asia, and Europe it is almost nonexistent in North Africa and the Middle East. Beef and veal (including buffalo) is predominant in Latin America, Oceania, and Africa. Lamb and mutton are consumed in large quantities in only a few places in the world, mainly Oceania, North Africa, the Middle East, and South Asia. Likewise goat meat accounts for a large share of the meat and offal calories in only a few regions--South Asia, the Middle East, and Africa.

Poultry meat consumption is more important in the Middle East, Japan, North Africa, and Latin America and, unlike the other meats, does not exhibit large swings between the countries. Poultry meat accounts for between 5 to 26 percent of a region's meat calories--a much narrower band than beef, which accounts for 6 percent of the meat calories in China to 56 percent in Latin America. Pork ranges from 84 percent of China's meat calories to 1 percent in North Africa and the Middle East.

High Incomes Equal More Meat

Animal products account for 15 percent of the world's average daily caloric consumption. Of this, 7 percentage points come from meat and offals, 4 points for milk, 2 points for animal fats and oils, and 1 point each for eggs and fish. Regions with over 30 percent of their calories from animal products are Oceania, North America, and Europe. These regions have the highest per capita gross national product, and generally the link between incomes and meat consumption is well established.

In the United States, 36 percent of the calories come from animal products, with over half of this from meat. In Europe, 32 percent of the calories are from animal products, but only 43 percent of this is from meat and offal. Animal products make up only 26 percent of the caloric consumption in the USSR, and meat accounts for only 36 percent of the animal products.

At the other end of the scale, the low-income economies--mainly in Asia and

Central Africa---are the lowest per capita meat consumers. They have the greatest percentage of the labor force engaged in agriculture and also have the largest share of agriculture in gross domestic product. Those regions with the lowest per capita meat consumption are also generally those areas with the highest birth and total fertility rates. In addition, life expectancy is lower.

South, East, and Southeast Asia have only 6 percent of their daily caloric consumption coming from animal products. East and Southeast Asia consume 45 percent of their animal product calories from meat, while South Asia gets only 9 percent. Africans consume 8 percent of their calories from animal products, but a substantial amount (42 percent) of the animal product calories are from meat.

Factors Restricting Meat Consumption

Religious beliefs have an impact on meat consumption. In nations predominately Moslem and Jewish, primarily in North Africa and the Middle East, pork consumption is practically nonexistent. No meat is consumed by strict Hindus, found concentrated in South Asia. Consumption of meat in these areas occurs primarily among small religious minorities.

Other negative factors are population pressures that can force the intense use of every inch of land for cultivation of crops, making the luxury of pastures carrying ruminants, or feeding their limited calories of crop production to pigs or chickens, unacceptable. However, pigs and chickens are good scavengers and are often grown in countries with a limited land base. These operations are not like the confinement operations found in industrial countries. As some countries develop their meat production capacity, it is usually with a poultry industry, because of poultry's low feed-to-meat conversion ratio.

Lack of foreign exchange or credit limits feed grain imports, as well as purchases of imported meat. For example, chicken backs and wings would be imported if a country could not afford the meatier parts of whole chickens, and chickens will be imported if beef is too expensive.

Most countries would prefer to import the needed feed ingredients and produce their own meat to benefit livestock producers in their own countries. However, limited development of a meat industry precludes this. Also, if there is a temporary shortfall in domestic production, it would be more expedient to import what is needed.

Lack of adequate transportation also limits countries' ability to move imported meat or feed grains for domestic production of meat. Lack of refrigeration also limits the types of meat (and other animal products) available in a particular area. Small animals, such as chickens, lambs, goats, and rabbits, are preferred in areas where refrigeration is limited.

Climatic conditions are limiting factors in some areas. Dairies in Saudi Arabia have to be air conditioned, and poultry operations are shut down during the hottest part of the year. Grazing in dry areas, such as in western Australia, does occur, but the carrying capacity of the land is limited. Indeed, rainfall is so inadequate in many areas of the world that it precludes extensive crop cultivation, so limited grazing is the only viable alternative land use.

Disease, pests, and predators also reduce some areas' animal production capacity. Developing countries, in particular, are unable to provide the same quality of veterinary services as the high-income countries. Not only are insufficient numbers of technicians trained, but medications and immunizations are either unavailable or too expensive. Lack of education and extension services also inhibits animal husbandry training. [*Linda M. Bailey (202) 786-1691*]

Assessed Food Needs Continue To Decline

Generally improved economic conditions and declines in expected world commodity prices will diminish the cost of maintaining the status quo in food availability during 1986/87 in 69 developing countries. Anticipated lower dollar-denominated petroleum import prices and lowered interest costs of debt are major factors. The 1986/87 decline in forecast extra-commercial food needs follows sharp declines in 1985/86. The

food assistance needed to meet minimum nutritional needs has also declined, except in Sub-Saharan Africa.

These measures are of food need in excess of recipient countries' capacity to import food commercially. Estimates of commercial import capacity assume continuance of the recent experience in international debt payment.

The status quo assessment assumes that food aid prevents food supplies, and hence consumption, from falling below recent levels. Meeting status quo food needs stabilizes per capita consumption by filling shortfalls in domestic production and import capacity. The nutrition-based assessment assumes that additional food is needed to close the gap between food availabilities and an internationally accepted minimum nutritional standard.

During 1985/86, the 69 developing countries will require about 9.7 million tons of cereals in excess of estimated commercial import capacity to maintain consumption at existing levels. This is around 2 million tons below estimated needs for 1984/85. Stock rebuilding to sustain recent levels in countries with above-trend production would require over 0.5 million tons of cereals above 1985/86 status quo consumption based needs.

To meet minimal nutritional standards, the countries would need 22.6 million tons of additional cereals, down more than 3 million tons from requirements in 1984/85. The decline in nutrition-based needs is largely due to the greatly improved food situation in Africa.

In many regions, nutrition-based needs are constrained by the inability to store or distribute large volumes of food imports. This problem remains acute in East and Southern Africa and in South Asia--particularly in Ethiopia, Mozambique, and Bangladesh. Physical restraints would allow the 69 countries to absorb only an estimated 18 million tons.

Regional Overview

Among individual regions, Africa's status quo consumption needs for 1985/86 are projected at 4.8 million tons of cereals, 3.8 million below estimated 1984/85 needs. In Sub-Saharan Africa, status quo needs are assessed at around 2.6 million tons for 1985/86, down 2.2 million from 1984/85. In East Africa, crop failures and civil disturbances have now generated needs of 1.5 million tons, down from actual food aid of over 3 million tons delivered in 1984/85. Assessed needs are down 918,000 tons from 1984/85 in Southern Africa, 1.1 million in West Africa, 700,000 in North Africa, and 60,000 in Central Africa. Stock rebuilding would add 400,000 tons to Africa's total status quo needs.

Status quo additional needs in Asia, now assessed at 3.6 million tons of cereals for 1985/86, are up 1.3 million tons from 1984/85 estimated needs. Greater needs in Bangladesh and Pakistan offset reduced needs in Sri Lanka and Vietnam. Overall, Asian stock adjustment requirements remain low relative to additional food needs. South Asia's 1985/86 status quo needs, projected at 2.5 millions tons of cereals, are 1.8 million greater than 1984/85's.

Latin American status quo additional cereal needs are now 970,000 tons below 1984/85. Total status quo food aid requirements of 446,000 tons reflect improved commercial import capacity resulting from larger financial reserves. This is mainly a consequence of reduced payment on outstanding debt, rather than reduced indebtedness. Debt-service payments will be high, even if countries reschedule their debt to the same extent as in previous years. South American stock adjustment requirements are high relative to food needs.

Total assessed nutrition-based consumption needs for the 69 countries are 22.6 million tons, compared with 26 million in 1984/85. This decline is largely due to the greatly improved food situation in Africa. In Asia, reduced needs in Bangladesh, Nepal, and Sri Lanka have more than offset significantly higher needs in India, Pakistan, and Kampuchea. Total nutritional needs in South Asia are now estimated at 11.2 million tons, up from 10.4 million in 1984/85. Southeast Asian nutrition-based additional food needs are down 930,000 tons. While nutrition-based food needs have risen in some African countries, overall Sub-Saharan nutrition-based needs are 8.2 million tons, compared with 10.4

Additional cereal needs to support consumption, stock adjustments, and maximum absorbable cereal needs 1/

Region	Consumption		Consumption + Stocks		
	Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum 2/
	1,000 tons (cereal equivalent) 3/				
1984/85					
Total	11,745	25,767	13,450	27,472	4/
1985/86					
	November 1985 assessment				
Total	9,017	18,600	9,880	19,768	15,318
	July 1985 assessment				
Total	11,449	19,356	12,717	20,424	18,045
	February 1986 assessment				
Total Africa	4,849	8,209	5,247	8,561	7,699
North Africa	2,293	0	2,366	0	2,366
Sub-Saharan Africa	2,556	8,209	2,881	8,561	5,333
West Africa	456	1,519	591	1,691	1,342
Central Africa	208	276	219	288	290
East Africa	1,500	4,712	1,679	4,872	2,665
Southern Africa	392	1,702	392	1,710	1,036
Middle East	763	722	795	754	807
Total Asia	3,607	12,808	3,726	13,329	8,649
South Asia	2,525	11,178	2,440	11,494	6,814
Southeast Asia	1,082	1,630	1,286	1,835	1,835
Total Latin America	446	837	558	916	904
Caribbean	191	351	218	378	371
Central America	183	330	206	378	378
South America	72	156	134	160	155
Total	9,665	22,576	10,326	23,560	18,059
1986/87					
Total	8,107	16,921	8,760	17,736	12,960

1/ Imports consistent with maximum recent levels of consumption and food stocks. 2/ The sum of the greater of status quo or nutrition-based maximum absorbable needs of each country. 3/ Major cereals and the cereal equivalent of shortfalls in roots and tubers. 4/ Maximum absorbable needs not computed in 1984.

million tons in 1984/85. Latin America's 1985/86 nutrition-based needs are now assessed to be down 1.3 million tons from 1984/85, to 837,000.

In many regions, imports of nutrition-based needs are constrained by storage or distribution capacity. This continues to be particularly significant in East and Southern Africa, and in South Asia. Individual countries in which this constraint is of major importance are Ethiopia, Mozambique, and Bangladesh.

The Outlook for 1986/87

Status quo additional cereal needs are projected to decrease further in all regions in 1986/87, largely because of increased commercial import capacity generated by declining commodity prices. Overall needs may decline 1.57 million tons to 8.1 million in 1986/87. One million of this is projected to be in Africa, about equally divided between North Africa and the Sub-Sahara. South Asian needs are projected to decline 350,000 tons to 2.2 million, and Southeast Asia's may decline slightly to 1 million. Latin American status quo needs could decline only 141,000 tons in 1986/87. Total nutrition-based needs for all the countries are projected to decline to 16.9 million tons, but they could increase slightly in Sub-Saharan Africa. The major decrease, of 5.7 million tons, is in South Asia.

Factors Underlying Reduced Food Needs

The outlook for financial and economic conditions for many low-income developing countries appears to be improving. Key to this improved outlook over the projection period are the following: World petroleum prices have declined more than 30 percent for many petroleum sources; the dollar has continued to

fall in value, by more than 25 percent against some major currencies; international interest rates have remained stable, well below the high rates of the past several years; and world trade continues at a moderate pace. In addition, the price of imported foods is likely to fall in the near future because of new U.S. agricultural legislation sharply lowering grain price supports.

One major variable that had performed poorly for many low-income developing countries--prices for commodity exports--may be on the verge of improving. By the fourth quarter of 1985, the index of commodity prices published by the International Monetary Fund had begun to recover from its level at the end of the third quarter. Although this movement is very short-term, several factors suggest that the index may continue to rise.

First, the weakening of the dollar has lowered the prices of dollar-denominated commodities for most importers. Second, recovery in Europe is strengthening, albeit slowly. That region's continued recovery and recovery in Asia and North America require the raw materials typically exported by low-income regions. Third, drought damage in Brazil implies that prices for coffee will remain high during and perhaps beyond 1986.

The factor that will likely have the largest benefit for most developing countries is the decline in petroleum prices. This benefit will be strongest for those countries whose currencies are appreciating against the dollar, for example, those whose currencies are tied to the French franc. For them, the 20-percent drop in oil prices and the 27-percent appreciation of their currencies since February 1985 have lowered their import prices for petroleum by about half. This savings in foreign exchange is substantial, considering that petroleum imports for most of these countries represent 15 to 25 percent of total imports.

Large world supplies of oil and relatively weak demand suggest that petroleum prices will remain low through 1986/87, though policy changes by oil-exporting countries could alter this outlook. The appreciation of local currencies will likely help most low-income countries in a number of ways. Countries will be able to import larger volumes of goods with the same level of local currency, since the decline in the dollar enables a country to purchase a larger volume of dollars with the same amount of local currency. Additional foreign exchange that is not used to purchase imports may be used to repay international debts. The possibility that foreign exchange earnings may be higher than expected and that interest rates will likely be lower than expected suggests that payments made to service international debts could be somewhat higher than currently projected.

Food Assistance in 1985/86

The Food and Agriculture Organization estimates that almost 11 million tons of cereal aid will be shipped from all donors in 1985/86 (July/June), about 13 percent less than in 1984/85. Low-income, food-deficit countries are expected to receive about 85 percent of this, the same share as last year. It is estimated that the United States will provide about two-thirds of all cereal aid, compared with the second largest donor, the European Community, which will provide almost 15 percent.

Under the Food Security Act of 1985, more resources under Title I are to be channeled through the recipient's private sector. The minimum share of Title I to be handled through Title III (Food for Development) agreements is reduced from 15 to 10 percent. The minimum required volume for Title II was increased from 1.7 million tons to 1.9 million.

The volume and types of commodities donated are expanded under Section 416 of the Agricultural Act of 1949, as amended. Minimum volumes of Commodity Credit Corporation dairy products, grains, and oilseeds are allowed, but may be waived under specified criteria.

The Food for Progress program, targeted to those countries committed to market-oriented agricultural policy reform, is authorized 75,000 tons of commodities under Section 416, and additional commodities may be financed under P.L. 480, Title I. The maximum volume authorized is 500,000 tons annually through fiscal 1990. [*Ray Nightingale (202) 786-1705*]

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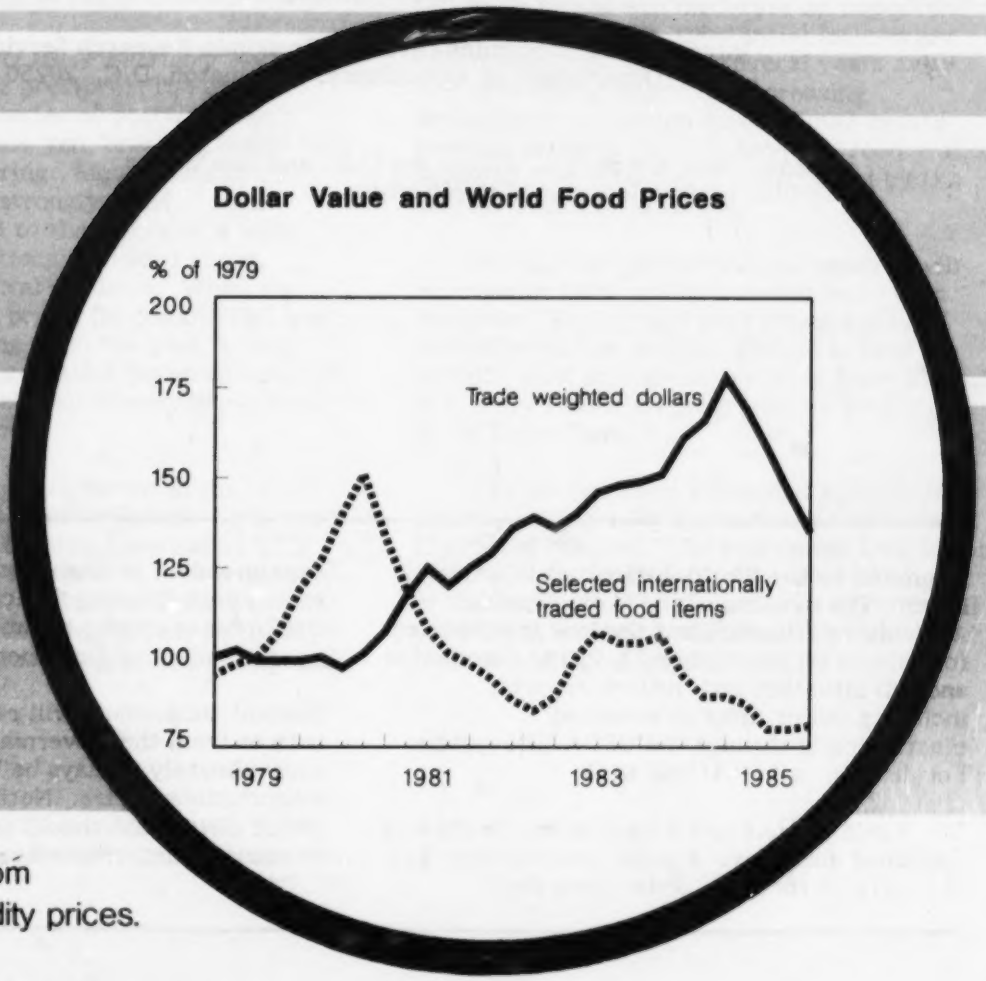

Dollar has moved in opposite direction from international commodity prices.

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Note: Tons are metric, dollars are U.S., and rice is on a milled basis unless specified otherwise.

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SUMMARY

World economic growth in 1986 will average about 2.9 percent, near last year's estimated 3.1 percent. Slowdowns in Japan and the oil-exporting countries may more than offset accelerating growth in Europe and, possibly, the developing countries of Asia. Inflation could decline further in the face of monetary restraint in many countries, reduced prices for petroleum and other commodities, and continued high unemployment rates. For the developed economies, inflation will almost certainly fall below the 4-percent average of 1985.

Interest rates are expected to remain low, compared with the 1980-85 average. Led by declines in U.S. rates since January, and helped by the dollar's depreciation, many foreign interest rates have fallen by 2 percentage points, and will probably average lower this year than in 1985.

After declining since February 1985, the dollar is still under pressure. The dollar recently fell to a series of postwar lows against the Japanese yen, breaking below 160 yen before recovering. Movements in the dollar's value are strongly--and inversely--related to the prices of a wide variety of internationally traded goods, including agricultural products. When the dollar rises, world prices (in dollars) fall and vice versa. Judging from the past, a long trend of dollar depreciation portends upward pressure on international commodity prices, including food items.

Agriculture's contribution to the U.S. trade balance continues to shrink. This year's agricultural trade surplus, forecast at $7.5 billion, will be the smallest in over a decade. The volume of U.S. agricultural exports will decline for the sixth straight year in fiscal 1986, while the value of agricultural imports will probably reach a record high for the third consecutive year.

The U.S. trade balance with Africa and the Middle East has changed substantially during the last 15 years: After starting with a $1-billion surplus, trade reached a deficit of more than $30 billion in 1980, before moving to a current deficit of around $3 billion. The region is almost a $20-billion market for the United States, with agriculture more than 25 percent of the total. U.S. imports from the region total about $23 billion, with a 6-percent share for agriculture.

Rapidly accelerating demand for food is exceeding productive capacity in developing countries. The situation has been complicated by a substantial withdrawal of international credit, which is likely to continue. While the fall in oil prices will moderate oil importers' need for new credit, substantial inflows are still needed, but may be several years away. The developing countries' increasing dependence on foreign supplies may create growing markets for U.S. food and feed grains; however, the potential is constrained by the current financial situation.

World meat production and exports will increase in 1986, but at a slower pace than last year. Poultry and pork expansion will more than offset a slight decline in beef output. Beef shipments resulting from EC and U.S. dairy reduction programs are altering world trade flows.

The Soviets have suspended agricultural activity within a 30-kilometer radius of the Chernobyl reactor. The abandoned area is not agriculturally important. The overall impact of the nuclear accident on Soviet agricultural production will not be known until the Soviets release additional information.

WORLD ECONOMIC CONDITIONS

Global Assessment

World economic growth in 1986 will average about 2.9 percent, near the 3.1 percent estimated for last year. Expected slowdowns in Japan and the oil-exporting countries will more than offset accelerating growth in Europe and, perhaps, the developing countries of Asia. Inflation could decline further in the face of monetary restraint in many countries, reduced prices for petroleum and other commodities, and still-high unemployment rates. For the developed economies, inflation will almost certainly fall below the 4-percent average of 1985.

Interest rates will likely remain low, compared with the averages of 1980–85. Led by declines in U.S. interest rates since January, and helped by the dollar's depreciation, many foreign interest rates have fallen 2 percentage points, and will probably average lower in 1986 than in 1985. Unemployment will remain high in most developed economies; the United States continues to lead other nations in the decline of its unemployment rate.

Dollar Decline Influences Outlook

Several significant events during the past year have laid the groundwork for this year's outlook. Perhaps the most important has been the 30-percent decline of the dollar between February 1985 and mid-June 1986, measured by the Federal Reserve Board's index of the dollar's value. By May 1986, the expected effects of the depreciation appeared to be taking hold. For example, some countries' exports had begun to decline, and this has brought down profits, industrial production, capacity utilization, and other indicators. For France, Germany, and the Netherlands, industrial production declined an average of 4.3 percent in the first quarter of 1986 from the fourth quarter of 1985, while increasing marginally from the previous year. Japan's pre-tax corporate profits declined in April for the ninth consecutive month, and capacity utilization and raw materials consumption fell for the eighth straight month. Since these declines have occurred despite buoyant consumer demand, they may have resulted largely from the falloff in exports.

A second major effect of the dollar's drop is the decline in foreign interest rates. Foreign officials, no longer having to maintain their currencies' values against the dollar, have reduced their interest rates along with declines in U.S. rates. To illustrate, the 2.5-point decline in rates for U.S. certificates of deposit (CD's) between February 1985 and mid-May was almost exactly matched by declines in the average foreign interest rate on comparable assets. This is in sharp contrast to the time when the dollar was strong and officials attempted to limit capital outflows and their currencies' depreciation. From June to December 1984, when the dollar appreciated almost 9 percent, U.S. CD's declined almost 3.5 percentage points. In contrast, foreign interest rates fell only 1 point.

Lower Oil Prices To Boost Foreign GNP

Another significant event of the past year is the decline in world petroleum prices, more than 50 percent from the 1985 average price of $28 per barrel. Settling at about $12 per barrel in early June, oil prices will likely average about $18 during the first half of 1986 and perhaps close to $15 afterward, for an annual average of about $16. Savings for the oil-importing countries could amount to $72 billion this year, assuming an average oil price of $16 and unchanged import volumes from 1985. The direct effects of this saving will likely provide a significant boost to the oil-importing economies. The indirect effects, through lower inflation and interest rates, will boost economic activity further. Negative effects for oil-importing countries will likely be small because most do not have domestic oil sectors that would suffer from lower prices.

Globally, the net effects of lower oil prices will likely be positive. The gains accruing to the oil importers will likely outweigh the losses to the oil exporters. Only a few of the oil-exporting countries are apt to suffer immediate economic hardship; many will be able to draw down their assets to minimize cutbacks in expenditures. Mexico, and perhaps Venezuela, are possible exceptions because of their large populations and need for export earnings to meet debt payments. The expected shortfall in Mexico's export earnings could double its financing needs this year.

One-Percent Boost to Foreign Industrialized GNP

Savings in petroleum imports for the major industrialized economies--Japan, Canada, the United Kingdom, Germany, France, Italy, and the Netherlands--will amount to roughly $48 billion in 1986, assuming an average price of $16 per barrel and unchanged import volumes. For this group, except Canada and the United Kingdom, almost all oil needs are imported. The savings from 1985 to 1986 represent more than 1 percent of these countries' GNP and 1.2 percent if Canada and the United Kingdom are excluded.

The assumption that quantities of oil imported will remain unchanged in 1986 and pick up in 1987 is based on experience. Typically, oil imports lag price changes by a year. Europe's diminishing output suggests that demand for petroleum products may rise slowly, and perhaps even decline, thus delaying a pickup in petroleum imports.

Another factor that suggests that oil import volumes may remain fairly steady is that many consumers have not seen internal oil prices decline to nearly the extent they have on world markets. Foreign governments are keeping their domestic oil prices high by raising oil taxes, preventing savings from being spent on other, possibly domestic, goods and services. This lost domestic production represents a short-term loss to countries with oil-tax policies. The longer-term gain, which is probably much smaller, is that the increased tax receipts help to lower government deficits and, in turn, the need to sell government bonds, which tend to reduce interest rates.

Conservation and Substitution Dampen Effects

The economic boost from declining oil prices could be much greater if important conservation and substitution measures had not been taken over the past 14 years. These measures have already reduced the volumes of oil imported and consumed, lowering possible savings. To illustrate, oil imports of the major foreign industrialized nations, excluding Canada and the United Kingdom, declined from 8.3 billion barrels in 1973 to 3.7 billion in 1985, a 55-percent drop. For the major European countries, excluding the United Kingdom, the decline was 61 percent, from 5.7 billion barrels in 1973 to 2.2 billion in 1985.

Oil Exporters Likely To Reduce Imports

The oil-exporting countries will have smaller revenues with which to finance imports from nonoil exporting countries, but the overall effects will likely be small. Each billion-dollar reduction in the export earnings of oil-exporting countries translates into a $690-million reduction in their import expenditures. A decline in exports of $72 billion in 1986, reflecting unchanged export volumes at $16 per barrel, would imply a potential decline in imports of $50 billion, roughly 3 percent of the exports of the rest of the world. *[Art Morey (202) 786-1687]*

Dollar Exchange Rates

The dollar's decline, begun in February 1985, appeared to abate during the second quarter of 1986, with central banks in the United States, Japan, and Germany pushing to stabilize the dollar. However, the persistently large U.S. trade deficit continues to generate political pressures for further depreciation, particularly against many developing countries' currencies compared to which the dollar remains strong. Reacting to March reports of a U.S. trade deficit equivalent to $174 billion annually, the dollar reached a series of postwar lows against the Japanese yen, dipping temporarily below 160 yen before recovering.

Concerted action by G-5 nations (the United States, Japan, Germany, France, and the United Kingdom) to lower the foreign exchange value of the dollar, which began in September 1985, broadened in January 1986 to include interest rate reductions made possible by plummeting oil prices. Discount rate reductions, either individually or in concert among central banks in the United States, Japan, Germany, and others, have lowered official and commercial interest rates several points since January. By mid-April, official discount rates stood at 6.5 percent in the United States, and 3.5 in Japan and Germany.

G-7 Tokyo Economic Summit

The heads of State and Government from the United States, Japan, West Germany,

Foreign currency units per U.S. dollar

Year	Mark	Yen	Pound	Guilder	Can$
1980	1.818	226.4	.4299	1.987	1.169
1981	2.257	220.2	.4983	2.492	1.198
1982	2.427	248.8	.5722	2.669	1.233
1983	2.554	237.4	.6597	2.853	1.232
1984	2.847	237.6	.7517	3.209	1.295
1985	2.942	238.3	.7790	3.319	1.365
1986					
Jan.	2.437	199.8	.7014	2.746	1.407
Feb.	2.330	184.8	.6999	2.632	1.404
Mar.	2.276	178.6	.6809	2.565	1.400
Apr.	2.268	174.7	.6671	2.560	1.387
May	2.226	166.9	.6564	2.505	1.375
June 1/	2.240	168.4	.6644	2.520	1.389

1/ Preliminary.

France, the United Kingdom, Italy, and Canada (the G-7 countries), as well as the Commissioner of the European Communities, met in Tokyo, Japan, May 4–6, for their annual summit conference.

Their communique announced measures that could lead to more stable foreign exchange markets. At future summit meetings, G-7 finance and economic ministers will meet to collectively review individual economic objectives and forecasts in light of "objective indicators." These indicators will include such items as GNP growth rates, inflation rates, unemployment rates, fiscal deficit ratios, current account and trade balances, monetary growth rates, reserves, and exchange rates. Ministers will then make their "best efforts" to remedy any problems arising from policy differences.

Regular consultations and their public review are hoped to encourage better policy coordination among the major economies. Such coordination could provide greater world economic stability and growth than in the decade and a half following the demise of the Bretton Woods fixed-exchange-rate regime.

Outlook

Central bank governors from the United States, Japan, and Germany appear to be in agreement about stabilizing the dollar in forthcoming months as a precaution against inflationary pressures. The rapid appreciation of the yen since September 1985 from just below 240 to near 167 per dollar on average in May 1986 has particularly hurt Japanese small- and medium-size industry, leading the Bank of Japan to call for coordinated support of the dollar. However, the effects of large U.S. trade deficits on U.S. businesses generate similar pressures in the United States for further dollar depreciation.

Consequently, central banks seem to be trying to stabilize the dollar within 160 to 180 Japanese yen and 2.15 to 2.25 German marks to allow trade adjustment. Recent realignment of the ECU (European Currency Unit) in the European Monetary System, in which the French franc and the German mark figure prominently, has left interest rate reductions a greater possibility in France than in Germany. French interest rate reductions might weaken the franc slightly toward 7 francs per dollar. Less volatile oil prices are also likely to work toward maintaining the British pound around its current rate of $1.54 per pound.

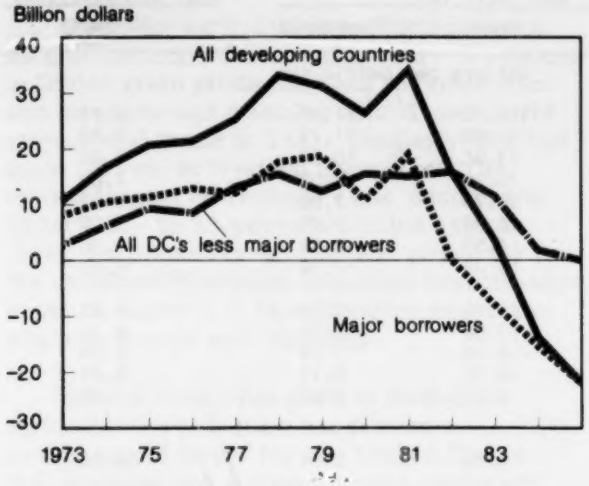
Renewed confidence in the Canadian economy has stopped its continued depreciation against the U.S. currency, strengthening the Canadian dollar from volatile lows of Can$1.44 in February to near Can$1.38 in mid-May. The Australian dollar, although ending its strong depreciation against the U.S. currency in April 1985 to near Aus$1.50, has not strengthened markedly since then, averaging Aus$1.37 in May 1986. *[Ted Wilson (202) 786-1688]*

Credit Flows to Developing Countries

Global Patterns

Developing countries found it increasingly difficult to acquire new credit in 1985. Funds again flowed out of developing countries in increasing amounts. Net international transfers (international loan disbursements minus international debt-service payments) to developing countries amounted to $22 billion in 1985 compared with almost $14 billion in 1984. As recently as 1981, there was an inflow to developing countries of more than $34 billion. The outflow was concentrated in the major borrower nations (international debt in excess of $15 billion). For developing countries other than major borrowers and low-income African countries, there has been a substantial decline in net transfers rather than a net outflow. Although this is already a bleak picture, the prospects for 1986 suggest the situation may get worse.

Net International Transfers to Developing Countries



Underlying the patterns of credit flows are those of trade. The trade deficit for all developing countries peaked in 1981 and declined thereafter, achieving a slight surplus in 1985. This reflects the dramatic changes in Brazil and Mexico, who had spectacular trade surpluses in 1983 and 1984. However, through 1984, the change in the trade pattern was almost entirely accounted for by declining imports. For low-income African countries there has been no significant narrowing of trade deficits, and balance of payment adjustments still need to be made.

Impact on Agriculture

There are large surpluses of agricultural commodities in the industrial market countries. Over the short run, this appears to be increasing. Responding to this situation and the short-term loss of competitiveness of U.S. agriculture, U.S. policies appear to be designed to depress world prices.

Virtually all commodity prices are being depressed. Increasing supplies of commodities on world markets in order to generate foreign currency for debt repayment will tend to further depress agricultural and commodity markets. There is little indication that the situation will change in the near future.

Real interest rates remain historically high, but may decline over the next several years. A decline will reduce some of debt service payments on variable rate debt and thus tend to ease the debt payment pressure on the developing countries.

The substantial declines in oil prices have a different impact on developing countries' financial state, depending on whether the country is an oil importer or exporter. For oil-importing countries the price decline reduces the oil import bill and frees resources to make debt service payments or increase imports. For oil exporters such as Mexico, Nigeria, and Venezuela, the loss in export revenue will make their financial situation far worse.

Withdrawal of Credit To Continue

The current situation is one of substantial withdrawal of credit resources to developing countries. This is likely to continue. Although declining interest rates may reverse this condition and the oil price decline will moderate oil importers' need for new credit, it will take at least several years before substantial flows of new resources are available to the developing countries. *[Mathew Shane (202) 786-1705]*

World Shipping

Freight Rate Futures Contracts

The introduction of dry bulk freight rate futures contracts represents the first offering of a "services" futures contract, enables hedging against dramatic price movements that characterize the dry bulk charter market, and provides a gauge of future freight rate trends. Freight futures contracts have been traded since May 1985 on the Baltic International Freight Futures Exchange and the International Futures Exchange.

Freight futures trading is accomplished by indexing rates for the major dry bulk commodities shipped over specific routes and a cash settlement of contracts. Although trading determines the value of the freight futures contracts (each index point is valued at $10), futures trading is based on the Baltic Freight Index (BFI), an indicator of the expected direction of dry bulk freight rates. In addition, the BFI directly affects futures contracts four times a year when it is used to settle expiring contracts.

The BFI is calculated daily from estimates made by a panel of eight shipping brokers. Each broker submits freight rate estimates for the 13 leading bulk commodities

Baltic freight index, grain components, and rate projections

Month	BFI	U.S. Gulf to			U.S. N. Pacific to
		Belgium	Japan	Venezuela	S. Japan
	Jan. 1985 = 1000	Dollars per metric ton			
1985					
May	1062.0	11.05	16.57	11.83	8.75
June	930.8	8.54	13.88	11.17	8.40
July	864.5	7.44	13.04	10.00	7.80
Aug.	718.2	5.78	10.00	7.08	7.08
Sep.	739.5	6.28	10.75	7.88	7.02
Oct.	866.5	8.33	14.46	9.95	9.00
Nov.	906.5	8.07	13.50	10.39	9.38
Dec.	916.5	8.53	13.08	12.79	8.65
1986					
Jan.	897.5	7.75	13.10	13.04	8.63
Feb.	827.5	6.92	12.00	8.32	8.70
Mar.	734.0	5.99	10.09	7.14	8.25
Apr.	732.0	5.75	10.50	6.72	8.45
May	658.0	5.86	8.50	6.67	7.16
Spot BFI rates on					
May 18, 1986		6.02	9.32	6.94	6.88
Projections 1/					
Rate implied by futures price					
July 1986		6.00	9.28	6.91	6.85
Oct. 1986		6.74	10.44	7.77	7.71
Jan. 1987		6.92	10.72	7.98	7.91
Apr. 1987		7.46	11.56	8.61	8.60

1/ Formula for projected rates was developed by Barry D. Parker, Man International Futures, Inc. Projections based on futures prices for months listed.
Source: Baltic Freight Futures Exchange

moving on the most regularly traveled trade routes. The highest and lowest estimates are rejected and the remainder averaged into an index that is weighted to reflect market activity.

Practical Uses of Freight Futures

The daily BFI is a measure of current (or 'spot') freight rates, while the index for the futures contracts, sold for delivery during the next 12 months, reflects expectations for future freight market conditions. Also, shipping analysts forecast approximate individual BFI components as the product of: Futures price in the delivery month times the spot for a specific cargo movement/BFI spot.

BFI Reflects Freight Market Slump

Decreased demand for shipping services resulted in a 38-percent decline in the BFI between May 1985 and May 1986. Temporary seasonal strengthening of rates for grain moving from the U.S. North Pacific to South Japan are exceptions to the general trend. While rates for grain moving from the U.S. Gulf to Belgium, Japan, and Venezuela averaged a 47-percent decline over the past year, rates for grain moving from the U.S. North Pacific to South Japan decreased only 18 percent, reflecting stronger demand for shipping services.

Freight Rates To Strengthen

Using the forecasting formula, future grain freight rates are projected to decline slightly in July, but increase 12 percent between July and October, rise slightly between October and January, and advance 8 percent between January and April. *[Kay L. McLennan (202) 786-1624]*

U.S. AGRICULTURAL TRADE

U.S. agricultural trade prospects are brighter for the latter part of 1986 and beyond as constraints such as the strong dollar and weak foreign economic growth are easing. However, during fiscal 1986 U.S. agricultural export volume will decline for the sixth consecutive year, and U.S. agricultural import value will probably be record high for the third straight year. At $7.5 billion, the U.S. agricultural trade surplus is forecast to be the smallest in over a decade. For 1986 at least,

the constraints that remain on U.S. trade will more than offset those removed.

Overseas agricultural production is one such offsetting influence this year. A rebound in Soviet grain production has removed what was an important stimulus to U.S. and world agricultural trade in 1985. Similarly, the last grain harvest in Western Europe was the second largest on record. Thus, despite the dollar's 25- to 35-percent decline against major European currencies, and prospects for the strongest European economic performance in years, lower U.S. farm product exports to Western Europe are expected.

Even a beneficial shift in foreign agricultural production has proven a double-edged sword for the United States. U.S. soybean and soybean meal exports are notably higher this year following a drought which cut production in Brazil. However, this same drought drastically curtailed Brazilian coffee output, raising prices and adding $760 million to the U.S. coffee import bill. Without higher 1986 coffee prices, U.S. agricultural imports would probably have declined rather than risen this year, offsetting some of the declining trade surplus.

Dollar's Decline Not Universal

The dollar's pronounced drop against major world currencies has improved U.S. trade prospects in some sectors. However, the currencies of major U.S. agricultural competitors--Argentina, Canada, and Australia--continued to weaken until recently, depriving agriculture of some benefits. Canada is also one of the United States' largest agricultural customers, ranking fourth in 1985, and halfway through fiscal 1986 Canada and three other top U.S. customers had seen their currencies weaken against the dollar. The others were Mexico, South Korea, and Taiwan, the United States' fifth-, sixth-, and seventh-largest agricultural export markets in 1985, respectively.

Finally, although realignment of U.S. prices to better reflect world market conditions is underway, the first steps will not be complete until yearend. Thus, U.S. agricultural exports will be constrained by importers' desires to postpone purchases until lower prices become effective. Wheat offers a prime example of such adjustments since the new crop year began in June 1986, leaving one-third of fiscal 1986 in the lower-priced crop year.

U.S. wheat export volume through May was between 5 and 6 million tons below the

U.S. agricultural export volume 1/

Commodity	1983	1984	1985	1986 F
	Million metric tons			
Wheat	36.7	41.7	28.5	26.0
Wheat flour	1.5	1.1	.8	1.2
Coarse grains	53.8	55.5	55.2	42.2
Rice	2.3	2.3	2.0	1.8
Feeds and fodders	7.0	6.8	6.4	7.0
Soybeans	24.5	19.3	16.6	21.5
Soybean meal	6.4	4.9	4.5	5.4
Soybean oil	.9	.8	.8	.6
Other oilcake and meal	.2	.2	.1	.1
Sunflowerseed	1.4	1.0	1.0	.5
Sunflowerseed oil	.2	.2	.1	.1
Cotton, incl. linters	1.2	1.5	1.3	.5
Tobacco	.2	.2	.3	.2
Horticultural prod.	3.0	2.9	2.7	2.7
Beef, pork, and variety meats	.4	.4	.4	.4
Poultry meat	.3	.2	.2	.2
Animal fats	1.4	1.4	1.2	1.3
Other	3.4	3.2	3.6	3.8
Total	144.8	143.6	125.7	115.5

1/ Fiscal year, actual export tonnages. Excludes animal numbers and some commodities reported in cases, pieces, dozens, liquid measures, etc.
F = forecast.

U.S. agricultural export values 1/

Commodity	1983	1984	1985	1986 F
	Billion dollars			
Grains and feeds	15.2	17.4	13.4	10.2
Wheat and prod.	6.2	6.8	4.4	3.6
Rice	.9	.9	.7	.5
Feed grains and products	6.6	8.2	6.9	4.6
Oilseeds and prod.	8.9	8.8	6.4	6.6
Soybean cake and meal	1.4	1.2	.8	1.1
Soybeans	5.9	5.7	3.9	4.4
Soybean oil	.5	.6	.6	.3
Livestock prod.	3.0	3.5	3.3	3.5
Poultry prod.	.5	.4	.4	.4
Dairy prod.	.4	.4	.4	.4
Horticultural prod.	2.7	2.6	2.6	2.7
Cotton, incl. linters	1.7	2.4	2.0	.7
Tobacco	1.5	1.4	1.6	1.5
Other	.9	1.1	1.1	1.4
Total	34.8	38.0	31.2	27.5

1/ Fiscal year. F = forecast.

same period in fiscal 1985. However, by the end of this fiscal year this gap is expected to narrow to 2.5 million tons as waiting importers reenter the market. Export sales of other commodities have been affected by similar postponements, but since their price adjustments come later in the year, some sales will probably be postponed out of fiscal 1986 entirely. *[Stephen MacDonald (202) 786-1621]*

WORLD COMMODITY DEVELOPMENTS

Wheat and Rice

The world wheat situation in 1986/87 is expected to resemble that of the past 4 years: production outpacing consumption, leaving ending stocks at new highs. Wheat production in 1986/87 is forecast at 504 million tons, with foreign production rising to a new high. World trade in wheat and rice will likely increase in response to lower prices, but large domestic supplies in many importing nations may temper the near-term import growth.

Large Crops Temper Imports

Large wheat crops are expected worldwide, with near-record crops expected in Brazil, Canada, China, and the EC-12. In South Asia, record crops have recently been harvested in Pakistan and India. Pakistan's import needs will be considerably smaller this year, while India, a former importer, will have record exportable supplies.

Soviet production, on the other hand, is estimated at 77 million tons, down 6 million from last year because of dry weather in the Ukraine and the Volga Valley. The largest year-to-year decline is forecast to take place in the United States, with 1986/87 production down more than 7 million tons from 1985/86. Reasons include dryness in the Western Plains, drought in the South, and large participation in the Government acreage reduction program.

While world import demand is expected to increase 5.5 million tons to 91.5 million in 1986/87 (July/June), trade will still be depressed compared with the 100-million-ton average of 1980/81-1984/85. Despite low

Wheat: World production, consumption, and net exports

Country	1984/85			1985/86			1986/87 F		
	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.
	Million metric tons								
Major exporters									
United States	70.6	31.4	37.9	66.0	29.5	24.7	58.6	31.8	30.3
Canada	21.2	5.2	19.4	23.9	5.8	17.5	26.0	5.5	19.0
Australia	18.7	3.7	15.3	16.1	3.2	15.7	15.3	3.1	14.5
EC-12	82.8	59.6	13.0	71.5	59.8	11.1	75.4	59.1	12.2
Argentina	13.2	4.6	8.0	8.5	4.4	6.1	9.6	4.5	4.6
Turkey	13.3	13.6	-.5	12.7	13.7	-.6	13.0	13.9	-.5
Major importers									
USSR	73.0	96.1	-27.1	83.0	98.0	-15.0	77.0	93.0	-16.0
China	87.8	95.2	-7.4	85.3	91.3	-6.0	87.5	94.5	-7.0
Eastern Europe	42.0	39.9	+1.5	37.5	38.6	-1.2	38.6	39.3	-1.1
Other W. Europe	4.5	3.4	+.8	4.1	3.5	+.5	4.2	3.6	+.6
Brazil	1.9	6.3	-5.4	4.3	6.8	-2.5	3.8	6.8	-3.1
Mexico	4.2	4.4	-.4	4.4	4.7	-.2	4.5	4.9	-.2
Other Latin Am.	2.0	8.6	-6.7	2.1	8.6	-6.7	2.2	9.0	-7.0
Japan	.7	6.3	-5.3	.9	6.3	-5.2	.8	6.3	-5.3
India	45.5	43.1	0	44.2	43.9	+.5	47.0	46.1	+.4
South Korea	--	3.0	-3.1	--	3.0	-2.9	--	2.8	-2.7
Indonesia	0	1.4	-1.4	0	1.4	-1.4	0	1.5	-1.5
Other Asia	16.8	25.1	-7.9	17.5	24.7	-7.8	19.6	26.5	-7.1
Egypt	1.8	8.5	-6.6	1.9	8.5	-6.7	1.9	8.7	-7.0
Morocco	2.0	4.2	-2.5	2.1	4.2	-2.0	3.3	4.5	-1.4
Other N. Afr./ME	9.9	25.4	-15.0	12.9	26.0	-12.9	12.2	27.2	-15.3
Other Africa	3.3	8.5	-5.5	3.1	8.1	-4.5	3.7	8.5	-4.9
Residual	.5	.2	-1.1	.1	.3	-.5	.2	.2	-1.5
World	515.7	497.7		502.1	494.3		504.4	501.3	

Trade on July-June years. — = negligible. F = forecast.

International commodity prices

Year	Wheat				Corn		Soybeans	Soyoil	Soymeal 44%	
	U.S. 1/	Arg. 2/	Can. 3/	Aust. 4/	U.S. 5/	Arg. 2/	U.S. 5/	U.S. 6/	U.S. 6/	Hamburg 7/
	Dollars per metric ton									
1977	105	100	116	113	98	93	271	524	212	240
1978	131	126	134	119	105	102	259	565	189	226
1979	162	159	171	142	118	117	278	610	160	254
1980	176	203	192	175	129	159	272	522	217	271
1981	176	190	194	175	135	139	272	464	223	269
1982	161	166	165	160	110	109	233	404	197	233
1983	158	138	167	161	137	133	269	518	222	255
1984	153	135	166	153	138	132	271	678	184	210
1985	137	106	173	141	114	103	214	596	140	171
1986										
Jan.	133	108	189	140	108	100	210	447	168	197
Feb.	131	102	183	133	105	92	207	404	169	201
Mar.	136	97	189	139	101	87	208	384	180	210
Apr.	138	96	187	137	102	86	205	389	173	205
May	128	90	185	131	106	90	205	391	174	199

1/ No. 2 hard winter, ordinary protein, f.o.b. Gulf ports. 2/ F.o.b. Buenos Aires. 3/ No. 1 western red spring, 13.5% protein, in store Thunder Bay. 4/ July-June crop year, standard white, f.o.b. selling price. 5/ U.S. No. 3 yellow, f.o.b. Gulf ports. 6/ Decatur. 7/ F.o.b. ex-mill.

prices, many importers have limited foreign exchange reserves, and others continue to produce at near record.

After six consecutive increases, the major foreign competitors' (Argentina, Australia, Canada, and the EC) exports declined about 5 million tons to 55 million in 1985/86. The decrease was largely due to weak world demand and poor 1985/86 harvests in Argentina and Canada, which limited both the quantity and quality of wheat available for export. Although 1986/87 production is expected to rebound in Argentina and Canada, the major competitors' exports are not expected to increase.

Sharply reduced prices and various export promotion programs may enable the United States to capture a large share of the expected growth in world wheat trade. The new U.S. loan rate, which became effective June 1, will permit U.S. prices to adjust more freely to world supply and demand conditions. The weaker dollar will also help in some markets. Many recent sales of hard red winter wheat have been $105 to $115 per ton, down from last year's $130 to $140, but competitors such as France continue to exhibit a willingness to undercut these prices in many markets. Export sales for the new crop are already about 1 million tons ahead of last year's pace, mostly a result of sales under the Export Enhancement Program (EEP). The U.S. export forecast for 1986/87 is 30.5 million tons, up 5.5 million from 1985/86.

Record Foreign Rice Production Expected

The world rice outlook for 1986/87 is for continued large supplies, modest growth in import demand, and lower prices. Production is forecast at a record 320 million tons (471 million, rough basis), up 4 million from last year and 2 million more than the 1984/85 record. Foreign consumption in 1986/87 is expected to rise 5 million tons to 316 million, equaling anticipated foreign production.

Rice trade in 1986 is forecast at 11.8 million tons, up more than 300,000 from 1985. Competition among the major exporters will likely intensify because of lackluster growth in world import demand and changes in U.S. rice policy. Thailand, the world's largest exporter, may export 3.9 million tons, down about 100,000 from 1985. This decline may result from increased competition with the United States in high-quality markets, and from the Nigerian Government's decision to ban rice imports.

U.S. Rice Regains Competitive Position

During 1985, the Houston price of No. 2, 4-percent broken rice averaged $409 per ton, and was about 80 percent greater than the

Rice: Production, consumption, and net exports

Country	1984/85 Prod.	1984/85 Cons.	1984/85 Net exp.	1985/86 F Prod.	1985/86 F Cons.	1985/86 F Net exp.
	Million metric tons					
Major exporters						
U.S.	4.4	1.9	1.8	4.4	1.9	2.1
Thailand	12.3	8.2	4.0	12.7	8.3	3.9
Pakistan	3.3	2.4	1.0	3.0	2.2	.9
China	124.8	123.9	.9	117.9	117.1	.8
India	58.6	57.0	.2	61.0	60.3	.2
Burma	9.3	8.8	.5	9.3	8.7	.6
Japan	10.8	10.2	0	10.6	9.8	0
Italy	.7	.3	.4	.7	.3	.4
Austr.	.6	.1	.4	.5	.1	.4
Major importers						
Indo.	25.9	25.2	+.4	26.5	26.2	+.3
S. Korea	5.7	5.5	0	5.6	5.6	0
Bang.	14.6	14.9	-.3	15.2	15.4	-.2
Vietnam	10.0	10.4	-.4	9.8	10.3	-.6
Other Asia	17.3	18.7	-1.5	17.8	19.0	-1.0
USSR	1.8	1.9	-.1	1.8	1.9	-.1
Brazil	6.1	6.6	-.4	6.1	6.7	-.8
Other Latin Am.	4.8	4.6	+.3	4.9	4.8	-.2
Iran	.9	1.5	-.6	.9	1.7	-.8
Other N. Afr./ME	1.8	3.7	-1.8	1.8	3.7	-2.0
Malagasy	1.4	1.5	-.1	1.4	1.5	-.2
Nigeria	.9	1.5	-.5	1.0	1.3	-.1
Other Africa	1.9	4.0	-2.0	2.1	4.2	-2.1
Residual	.7	1.8	-2.2	.7	2.9	-1.5
World	318.6	314.6		315.7	313.9	

Trade on calendar years; calendar 1984 corresponds to 1983/84. F = forecast.

average price of Bangkok 100-percent Grade B. By mid-April, however, the effects of the Food Security Act of 1985 were being felt. The marketing loan provision allows U.S. rice growers to pay back their farm loans at a much lower rate—for 1985/86, a rate equal to the world market price. The marketing loan provision became effective on April 15, 1986, and U.S. export prices immediately began falling. The Houston price in mid-June had declined to about $220, compared with the Thai price of $178, reducing the price ratio to 1.24.

The new U.S. rice policy will have less effect on exports by the other major exporters—Burma, China, and Pakistan. These exporters emphasize sales of lower quality rice in addition to Pakistan's basmati varieties.

U.S. rice exports are forecast to increase from 1.9 million tons in 1985 to 2.2 million in 1986. While only 416,000 tons were exported in the first 4 months of 1986, as many customers awaited lower prices, increased export activity is expected during the remainder of the year. The marketing loan program has given U.S. exporters an opportunity to regain commercial markets in places where the U.S. share had been declining rapidly, such as Western Europe, Saudi Arabia, and South Africa. The lower prices also make it possible to sell U.S. rice in new markets such as Brazil and Papua New Guinea. *[Scott Reynolds (202) 786-1691]*

Coarse Grains

Global Supplies and Consumption Soar

Record foreign coarse grain production in 1986/87, coupled with large carry-in stocks, abundant supplies of some non-coarse grain feeds, and limited growth of animal numbers, will lead to a modest increase in world import demand for feed grains. Global trade (excluding intra-EC) is forecast at 90.2 million tons, about 6 million (7 percent) above 1985/86. As 1986-crop prices fall in September, U.S. sales are expected to recover from the depressed 1985/86 level, but will remain well below those of earlier years.

Foreign 1986/87 coarse grain production is forecast at 580 million tons, up 11 million from a year ago. Although production losses are projected for some competitors (notably Canada, Australia, and Argentina), major gains are forecast for the Soviet Union and China, up 2 million and 10 million tons, respectively.

Expanding worldwide production of pork and poultry and very low grain prices will raise coarse grain use almost 25 million tons to a record of almost 800 million. Foreign use, at a record 628 million tons, will be up over 3 percent. U.S. consumption will show a somewhat smaller gain. In spite of the larger consumption, record foreign production and the second largest U.S. crop in history mean that world supply will continue to exceed use, boosting ending stocks about 17 million tons. The increase, however, is significantly smaller than those of the last several years.

Imports Show Modest Growth

Global trade in 1985/86 is suffering significantly from financial constraints in

Coarse grains: World production, consumption, and net exports

Country	1984/85			1985/86			1986/87 F		
	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.
	Million metric tons								
Major exporters									
United States	237.7	164.2	54.7	274.3	166.5	38.5	235.4	169.7	48.5
Canada	22.0	18.6	2.8	24.7	18.7	4.1	23.3	19.1	4.7
Australia	8.6	2.9	7.3	7.8	2.7	5.8	6.9	2.6	4.0
Argentina	18.6	7.5	10.6	18.3	6.9	11.9	17.7	7.0	10.4
Thailand	4.7	1.3	3.4	5.5	1.2	3.8	5.2	1.4	3.6
South Africa	8.7	6.9	-.2	8.9	7.4	.9	9.9	7.5	2.0
Major importers									
USSR	86.0	110.9	-27.3	94.0	106.0	-14.0	96.0	110.0	-15.0
China	95.4	89.9	+5.6	83.9	79.3	+4.5	94.3	90.6	+3.7
Eastern Europe	72.9	72.7	-.3	68.7	73.5	-4.3	68.9	69.2	-.8
EC-12	89.7	85.7	-1.6	87.7	86.3	+2.1	83.6	84.3	-.1
Other W. Europe	13.9	12.8	+.6	13.1	12.3	+1.2	12.9	12.5	+.5
Brazil	22.5	22.4	-.4	19.7	22.6	-2.2	23.1	23.3	-.6
Mexico	14.5	18.8	-4.2	14.2	18.5	-3.2	13.3	18.9	-5.6
Venezuela	1.1	2.6	-1.6	1.5	2.2	-.8	1.6	3.1	-1.5
Other Latin Am.	8.5	10.2	-1.8	8.2	10.1	-1.5	8.7	10.8	-2.2
Japan	.4	21.3	-20.7	.4	21.2	-21.0	0.4	22.5	-22.1
Taiwan	.3	4.4	-4.1	.3	4.5	-4.1	0.3	4.7	-4.3
South Korea	.9	4.5	-3.5	.7	5.0	-3.9	0.6	5.0	-4.4
Other Asia	47.2	50.7	-2.6	44.9	47.9	-2.1	46.9	49.0	-2.3
Egypt	4.4	7.0	-1.7	4.4	6.5	-1.8	4.7	6.6	-2.0
Iran	1.3	2.7	-1.3	1.3	2.8	-1.5	1.5	3.0	-1.5
Israel	.1	1.1	-1.0	--	1.2	-1.1	--	1.1	-1.1
Other N. Afr./ME	14.7	25.4	-11.2	20.7	30.6	-10.0	20.4	31.9	-11.9
Other Africa	33.7	34.7	-1.8	38.1	38.4	-.1	38.4	40.1	-1.2
Residual	.7	.5	+.3	1.2	.3	-1.2	.8	.5	-.8
World	808.5	779.7		842.5	772.6		814.8	794.4	

Production on crop year basis, trade on October-September year. Includes corn, barley, sorghum, oats, millet, rye, and miscellaneous grains. -- = negligible. F = forecast.

many developing countries, strong competition from nongrain feed ingredients, and abundant supplies in many coarse grain importing nations. Soviet purchases, for example, fell from a record of almost 27 million tons in 1984/85 to less than half that amount as production increased.

In 1986/87, financial and importer conditions are not likely to change greatly. However, lower export prices will certainly make coarse grains more competitive. Also, there will be some pent-up demand from purchasing delays during the summer quarter of 1985/86 in anticipation of declining prices this fall, allowing global trade to expand. Further, sharply reduced U.S. prices will likely lead to an expansion in U.S. exports and boost the U.S. share of the world market.

While U.S. shipments to a number of markets will rise, prospects for U.S. coarse grain sales to the EC remain depressed. The use of feed wheat and domestic barley in livestock feed rations continues to increase, permitting expanded industrial use of domestic corn. As a result, EC corn imports are low and are expected to fall even further as Spain and Portugal enter the Community. Spain is likely to follow the EC pattern, increasing use of domestic grains and nongrain feed ingredients such as Thai manioc and soybean meal.

Exporters Respond to Lower Prices

In 1986/87, competitor exports of coarse grain are forecast to decline about 2.5 million tons from this year. Argentine exports are expected to drop about 1 million tons from the high of 1985/86 but remain above those of earlier years. In Australia, sharply reduced prices will cause some crop area shift from barley to wheat. Wheat farmers receive a guaranteed minimum price, but not barley producers. Australian sales, estimated at about 4 million tons in 1986/87, will be sharply reduced and are the lowest since the drought-reduced 1982/83 marketings. China's sales to Japan and the Soviet Union continue high. Future sales, however, are likely to diminish somewhat as the PRC expands the

domestic livestock sector and thereby increases demand for feed grains. *[James Cole (202) 786-1691]*

Oilseeds

World oilseed production in 1986/87 is expected to surpass this year's record as growth in foreign output offsets lower U.S. outturn. While the 1986/87 U.S. loan rate cannot be announced until August, the Food Security Act of 1985 limits the decline to 5 percent below 1985/86. This is small in comparison to the 25- to 30-percent drop in wheat and corn loan rates, and could induce larger foreign oilseed plantings. On the demand side, the protein meal sector may have to support the oil markets, which will continue to be weakened by large palm oil supplies.

U.S. Soybean Exports Could Fall

Larger soybean crops in major competitor countries will create more export competition for the United States, and 1986/87 U.S. exports are forecast at 21 million tons, slightly lower than this year. Also, large supplies of other oilseeds will limit sales of U.S. soybeans, because importers' expanding needs will be met by domestic production or imports of other meals or oilseeds. For example, in Korea, traditionally a strong market for soybeans, for the first time rapeseed imports for domestic use are being allowed, and Korea is likely to import more Canadian rapeseed.

The outlook for protein needs will depend heavily upon expansion in the global pork and poultry sectors. Also, the USSR will play a critical role as in the past several years. This year's large soybean shipments to the Soviet Union have boosted U.S. exports, and since it is official Soviet policy to use more protein meal in livestock rations, large imports are expected in 1986/87.

Other expanding markets for soybeans and soybean meal include Asia, the Middle East, and North Africa. The continued development of poultry sectors in all of these regions will enhance feed requirements. In 1986/87, the U.S. soybean exporter may have an advantage in Mexico, to the extent that purchases by the public sector (CONASUPO) must be made under credit. However, the steep drop in Mexico's petroleum revenues has weakened the general economy and could lead to reduced soybean imports.

World and U.S. soybean trade prospects will depend to a large extent on EC import demands. The expanded European Community's oilseed crop production, particularly sunflowerseed, is expected to rise sharply. This, combined with greater domestic feed supplies, will limit the potential for soybean imports.

Soybeans and products: Production, consumption, and net exports

Country	1984/85 Prod.	1984/85 Cons.	1984/85 Net exp.	1985/86 F Prod.	1985/86 F Cons.	1985/86 F Net exp.
	Million metric tons					
Soybeans						
Exporters						
U.S.	50.64	28.03	16.28	57.11	28.71	21.23
Brazil	18.20	13.14	3.10	13.00	12.10	1.10
Arg.	6.50	3.86	3.29	7.30	3.70	2.90
China	9.69	1.59	1.05	10.51	1.62	.90
Importers						
EC-12	.16	12.37	-12.70	.34	12.76	-12.84
Japan	.24	3.79	-4.61	.23	3.97	-4.80
E. Eur.	.77	1.26	-.59	.57	1.15	-.65
Mexico	.55	2.00	-1.43	.75	1.93	-1.20
Taiwan	.01	1.20	-1.47	.02	1.25	-1.50
USSR	.47	1.13	-.85	.47	2.65	-2.40
Residual	5.31	5.38	-2.07	5.50	5.93	-2.74
World	92.54	73.75		95.80	75.77	
Soybean meal						
Exporters						
U.S.	22.25	17.67	4.46	22.69	17.10	5.63
Brazil	10.15	2.03	8.44	9.36	2.13	7.40
Arg.	3.08	.27	2.88	2.95	.28	2.65
Importers						
EC-12	9.82	18.00	-8.28	10.08	18.03	-7.73
E. Eur	1.00	4.43	-3.42	.91	4.43	-3.56
USSR	.86	1.41	-.55	2.06	2.66	-.60
Japan	2.92	3.12	-.09	3.06	3.24	-.16
Mexico	1.46	1.50	-.08	1.41	1.52	-.10
Residual	6.56	10.74	-3.36	7.15	11.41	-3.53
World	58.10	59.17		59.67	60.80	
Soybean oil						
Exporters						
U.S.	5.20	4.50	.75	5.29	4.49	.59
Brazil	2.46	1.56	.84	2.27	1.63	.55
Arg.	.64	.07	.50	.63	.08	.55
EC-12	2.22	1.37	.80	2.29	1.40	.85
Importers						
India	.15	.57	-.40	.17	.49	-.22
Pak.	0	.19	-.17	0	.20	-.20
E. Eur.	.22	.40	-.19	.20	.39	-.19
Iran	.02	.34	-.32	.02	.30	-.27
Morocco	0	.13	-.12	0	.13	-.13
Residual	2.42	3.99	-1.69	2.77	4.06	-1.53
World	13.33	13.12		13.64	13.17	

For soybeans, consumption refers to crush. Trade and consumption on marketing year except for Brazil and Argentina which are on an October-September year. F = forecast.

Ample Vegetable Oil Supplies

Global vegetable oil stocks at the end of 1985/86 will be more than double a year earlier, mainly due to large gains in Malaysia's palm oil output. Even if the growth in palm oil slows, large 1986/87 oilseed supplies and high beginning stocks will mean weak prospects for soybean oil. In addition, the major importers of vegetable oils, India and Pakistan, will expand oilseed output in 1986/87, adding to domestic supplies and diminishing import needs. With foreign exporters offering soybean oil at a substantial discount from the U.S. price, U.S. soybean oil exports will continue depressed. The narrow price differential among various oils, especially premium oil such as sunflowerseed and peanut, is brightening export prospects. *[Jan A. Lipson (202) 786-1691]*

Meat

World meat production and trade are forecast to increase in 1986 but at a slower pace than last year. While pork and poultry output is rising, beef is declining. Burdensome beef stocks are, however, assuring ample supplies. Measures to reduce EC supplies through increased exports are pressuring world prices and altering trade flows. Exports of pork are also expected to increase in 1986, but poultry may continue to decline.

Beef Output Down, Exports Up

Because of declines in the EC-10, world beef output is forecast to drop slightly, but exports will continue expanding. The EC and United States have sold beef at below normal trade prices. These temporary measures are being taken to clear larger supplies generated by reducing dairy herds in the EC and the United States.

Brazil To Import Beef

In 1985, the EC sold the USSR 175,000 tons of beef from intervention stocks at $262 per ton for forequarters and $578 per ton for hindquarters. Similarly, the United States has announced a 90,000-ton sale of beef to Brazil at $655 per ton. The United States is required under the Food Security Act of 1985 to export 200 million lbs. of meat to ease the effects of the Dairy Termination Program.

Beef and veal production

Country	1983	1984	1985 P	1986 F
	Thousand metric tons			
United States	10,748	10,929	10,996	10,920
Canada	1,036	997	1,020	975
Mexico	1,229	1,323	1,379	1,423
Argentina	2,384	2,558	2,740	2,700
Brazil	2,400	2,300	2,400	2,400
France	1,764	1,936	1,845	1,704
Germany, Fed. Rep.	1,494	1,616	1,574	1,626
Italy	1,149	1,182	1,210	1,170
Total EC-10	6,856	7,405	7,257	6,980
Eastern Europe	2,418	2,471	2,426	2,406
USSR	7,011	7,244	7,400	7,400
Australia	1,412	1,248	1,360	1,375
Other	5,627	5,448	5,502	5,534
Total	41,121	41,923	42,480	42,113

P = preliminary. F = forecast.

Although Brazil is a major beef exporter, several internal factors prompted its announced intention to import 250,000 tons. To reduce inflation, the Brazilian Government has instituted wage and price controls, including the retail beef price. Consequently, domestic producers are withholding cattle from slaughter, believing that packers are offering too low a price and are taking an unfair portion of the marketing margin. The inventory buildup is also being encouraged by monetary and land reforms, which have mandated a use-or-lose-it attitude by producers and government officials. To insure adequate supplies and hold down prices during the June-September dry season when production falls, the Government is importing up to 250,000 tons of beef to use as buffer stocks. Buffer stocks have historically been built up for the dry season via domestic purchases during the peak slaughter period and imports of about 20,000 tons.

Modest Growth in Pork Expected

Pork production surged 5 percent last year because of gains in China. With a more modest growth in Chinese pork output and a decline in the United States, 1986 world pork production may only rise 1 to 2 percent. Reduced feed prices and improved returns are helping to boost EC output. Although the Netherlands has instituted measures to limit growth because of pollution concerns, the measures have not yet limited expansion, and favorable 1985 returns are encouraging increased output.

Pork production

Country	1983	1984	1985 P	1986 F
	Thousand metric tons			
United States	6,894	6,719	6,716	6,574
Canada	852	863	900	887
Mexico	1,136	942	864	915
Germany, Fed. Rep.	2,722	2,735	2,755	2,840
France	1,624	1,625	1,609	1,633
Netherlands	1,201	1,258	1,340	1,375
Total EC-10	9,696	9,739	9,887	10,121
Eastern Europe	6,583	6,473	6,580	6,564
USSR	5,760	5,927	5,800	5,850
China	13,161	14,447	16,508	17,000
Japan	1,429	1,424	1,531	1,485
Other	5,230	5,068	5,242	5,311
Total	50,741	51,602	53,956	54,707

P = preliminary. F = forecast.

After several years of serious overproduction, Taiwan's output may be leveling. Taiwan has been supplying an increasingly larger share of Japan's pork market.

Poultry Output Up, Exports Down

A 3-percent increase in poultry meat output is likely this year. Although import demand is down, lower feed prices, increased demand because of higher prices for other meats, and health concerns continue to boost poultry meat output.

Import demand in the Middle East has dropped markedly because of a concerted effort in some countries to increase domestic production. Reduced oil prices are also affecting imports. Demand for poultry has been up in some Asian markets, particularly as the popularity of fast-food restaurants featuring chicken has increased. *[Linda M. Bailey (202) 786-1691]*

Poultry production

Country	1983	1984	1985 P	1986 F
	Thousand metric tons			
United States	7,151	7,427	7,865	8,361
Canada	537	558	603	622
Mexico	538	646	681	623
Brazil	1,580	1,398	1,530	1,590
France	1,284	1,247	1,277	1,277
Total EC-10	4,293	4,275	4,326	4,369
Eastern Europe	1,835	1,928	1,965	1,970
USSR	2,596	2,686	2,800	2,900
Japan	1,257	1,309	1,363	1,409
Other	3,742	4,010	4,177	4,287
Total	23,529	24,245	25,310	26,131

P = preliminary. F = forecast.

Cotton

Low prices will hold world cotton production down in 1986/87 and push consumption and trade up. Prices are expected to continue falling because of the world's huge supply and effects of the new farm legislation. The U.S. marketing loan program, which takes effect August 1, will make U.S prices competitive again and triple U.S. exports. While low prices will increase importer demand, competition among exporters will be intense. World stocks, which set another record in 1985/86, are likely to level in 1986/87, but are not yet expected to show a significant drop.

U.S. Exports To Rebound

U.S. exports are projected to triple in 1986/87 from 1985/86's extremely low 2 million bales. The U.S. share of world exports is expected to increase from the current 40-year low of 10 percent to 28 percent, almost equal to its traditional 30-percent average. More competitive prices are the driving force. After the cotton provisions of the new U.S. farm legislation take effect on August 1, the huge U.S. stocks now priced out of the market will become available at world market prices. This will intensify export competition, and exert continuing downward pressure on prices.

U.S. exports in 1985/86 will fall to one-third of 1984/85's 6.2 million bales. The U.S. loan rate has prevented U.S. export offerings from falling below the equivalent of about 70 cents per pound delivered to Northern European ports during the past year while the average world price tumbled to 45 cents. Despite lower world prices, world exports have also dropped in 1985/86, falling nearly 1 million bales or 4.5 percent. Trade is down because importers are minimizing 1985/86 purchases in anticipation of still lower prices in 1986/87.

Excess Supply May Stabilize in 1986/87

Production in 1986/87 will continue to fall, but the expected 3.6-percent decline is

Cotton: Production, consumption, and net exports

Country	1984/85 Prod.	1984/85 Cons.	1984/85 Net exp.	1985/86 F Prod.	1985/86 F Cons.	1985/86 F Net exp.
	Million 480-lb. bales					
Major exporters						
U.S.	13.0	5.5	6.2	13.4	6.3	2.0
USSR	11.9	9.5	2.4	12.1	9.6	2.6
Pakistan	4.6	2.3	1.2	5.7	2.4	2.2
Egypt	1.8	1.4	.5	2.1	1.4	.6
Turkey	2.7	1.8	.7	2.4	2.0	.6
Cent. Amer.	.8	.2	.5	.6	.2	.5
Sudan	.9	.1	.6	.9	.1	.8
Brazil	4.2	2.7	.3	2.8	2.8	.7
Mexico	1.2	.6	.6	1.0	.7	.4
India	7.9	7.1	.1	8.4	7.3	.2
China	28.7	15.5	1.1	19.1	17.5	1.6
Major importers						
W. Europe	.9	5.9	-4.8	1.1	5.8	-4.5
Japan	0	3.2	-3.1	0	3.0	-2.9
E. Europe	.1	3.7	-3.8	.1	3.7	-3.7
S. Korea	--	1.6	-1.6	--	1.7	-1.5
Taiwan	0	1.2	-1.3	0	1.2	-1.1
Hong Kong	0	.7	-.7	0	.6	-.8
Residual	8.9	6.4	+1.1	8.4	6.6	+2.3
World	87.6	69.4		78.1	72.9	

Year beginning August 1. Consumption is mill use. -- = negligible. F = forecast.

much smaller than 1985/86's 11 percent. Much of the drop will occur in the United States, as foreign production is likely to show little change. Planting of the 1986/87 crop has begun in the Northern Hemisphere. Based on planting intentions, area in the United States is estimated down sharply. Foreign area, however, is expected to remain about the same.

World consumption will rise in 1986/87, but growth is projected to slow to only 2.7 percent, compared with 5.5 percent in the previous season. Importers' purchases will rise significantly to satisfy pent-up demand, rebuild depleted stocks, and accumulate extra stocks of very low priced cotton in some countries .

The drop in production and the rise in consumption will not be nearly enough to offset the world's oversupply. However, the situation will improve somewhat, as stocks at the end of 1986/87 are expected to be 47 million bales, slightly below the beginning levels. Despite some possible increase in importers' ending stocks, most stocks will still be carried by major producers, such as the United States and China. *[Carolyn L. Whitton (202) 786-1691]*

Cocoa and Chocolate

Cocoa Supplies Continue Abundant

World cocoa bean production for 1985/86 (October/September) was forecast on February 20, 1986, at 1.88 million tons, down 3 percent from the previous year's crop. Since that time, USDA has revised its forecast for Ecuador, Ghana, and Nigeria based on Attache reports from those countries. The next USDA world cocoa bean production estimate is scheduled for release October 16, 1986.

The world cocoa grind is forecast at 1.80 million tons in calendar 1986, only marginally higher than last year's 1.795 million. The large grind reflects abundant cocoa supplies and lower bean prices. The forecast suggests 1985/86 cocoa stocks will increase around 48,000 tons over 1984/85. This is the second consecutive increase following stock drawdowns in 1982/83 and 1983/84.

The 1985 cocoa grind increased in West Germany, the Netherlands, the United Kingdom, and the Soviet Union. (Except for the United States, whose grind declined 6.4 percent, 1985 data are incomplete for most large processing countries.) The United States imported 270,333 tons in 1985, up nearly 40 percent from 1984. Imports of sweetened and unsweetened chocolate and cocoa butter also increased. This suggests that U.S. cocoa and chocolate supplies will be relatively plentiful and reasonably priced in 1986.

Cocoa Prices May Decline Again in 1986

New York cocoa bean prices (average of daily closing prices of the nearest 3 active futures trading months on the New York market) averaged 99 cents a pound in 1985, down from $1.06 in 1984. Prices averaged 91 cents a pound for the first 5 months of 1986,

Cocoa bean production, revised estimates

Country	1984/85	1985/86 Feb. est.	1985/86 Current
	Thousand metric tons		
Ecuador	128	110	85
Ghana	175	200	212
Nigeria	150 1/	115	95 1/

1/ Does not include cocoa marketed through Benin which, in recent years, has varied between 10,000 and 20,000 tons.

and seem likely to average under $1.00 a pound for the year, possibly close to 90 cents. Cocoa prices in the last half of 1986 will reflect the prospective 1986/87 crop, and the progress of negotiations this summer to review the International Cocoa Agreement. *[Fred Gray (202) 786-1769]*

REGIONAL DEVELOPMENTS

Western Hemisphere

Mixed Picture for U.S. Agriculture

U.S. producers entered the 1986 planting season facing the same conditions as in the last 2 years--large crop and livestock supplies, low prices, and weak domestic and export demand. Many farmers are still experiencing high debt payments and declining assets. Farm incomes are being supported by large government payments. On the other hand, several factors have emerged that bode well for the longer-term outlook. Lower interest rates, falling oil prices, and a weaker dollar will lower production expenses at home and help boost export demand abroad. In addition, the 1985 Food Security Act, by taking land out of production and lowering market prices, is designed to help reduce price-depressing supplies.

U.S. Crop Production To Fall

Area planted to major crops will decline this year as farmers respond to the provisions of the new farm legislation. The winter wheat harvest is already underway and may be the smallest since 1978. Area planted to coarse grains, cotton, rice, and soybeans is also expected to decline, and production will likewise fall from last year. However, carryin stocks of grains, soybeans, and cotton are record high and supplies in 1986/87 will still be exceedingly large.

As usual, weather remains the uncertain variable affecting production. Spring planting conditions in the United States were mixed. May planting was ahead of normal for corn, soybeans, and cotton, but lagged last year's pace for spring wheat. Cold, wet weather in the Northern Plains slowed planting and germination. Dryness in the Southeast delayed planting and stressed young plants. Pasture and range feed conditions are generally good.

U.S.-Canada Free Trade Discussions Set

On April 23, the Administration received authority from the Congress to enter into negotiations with Canada on establishing freer trade. Preliminary discussions to set the negotiating agenda have already been held. These negotiations run counter to growing world protectionism and escalating trade disputes, including numerous complaints on both sides of the U.S.-Canadian border. The extent of the negotiations is unknown, but they will no doubt be lengthy and complex, especially if agriculture is included, because of the many policies and programs involved. Although agricultural products account for only a small share of U.S. trade with Canada, they represent a large share of trade disputes. Canada is highly dependent on the U.S. market--about three-fourths of Canada's trade is with this country--and had over a $20-billion trade surplus with the United States in 1985.

U.S. Food Security Act Affects Canada

As Canadian farmers began seeding crops in May, they were already experiencing effects from the 1985 U.S. farm act. In early April, the Canadian Wheat Board (CWB) announced reductions in 1986/87 initial prices of 19 percent for wheat, 27 for barley, and 25 for oats. (The initial price is a guaranteed minimum price a farmer receives upon delivery of grain to the CWB.) The drops parallel the fall in 1986/87 U.S. loan rates for wheat and coarse grains.

The lower prices will affect Canadian plantings, but other factors will also have an impact. According to a preliminary seeding intentions report, taken before the initial price announcement, Canadian major-crop area will remain about the same as last year. The report indicates that a 2-percent increase in wheat area will offset a 2-percent decline for barley area and a 6-percent drop for rapeseed. However, the initial price announcement may result in some switching from grains to oilseeds. Moisture conditions in western Canada are the best in 2 years. In fact, excessive precipitation hampered planting in some areas. This situation could also force some farmers to turn to rapeseed, which matures faster than wheat or barley.

To help offset the price declines, the Canadian Government recently announced several farm-aid measures:

- a Can$580-million interim payment to western grain and oilseed farmers from the Western Grain Stabilization Fund in 1985/86;
- a rebate on federal sales and excise taxes on fuel used for farm purposes;
- an increase in the domestic wheat price that would transfer income from consumers to producers;
- a slight decrease in rail freight rates that farmers pay for shipping grain and oilseeds to export positions.

Caribbean Sugar Crop Weather-Damaged

The 1986 Cuban sugar crop is expected to be 10 to 20 percent below the record 1985 crop of 8.1 million tons, and the Dominican crop will be down another 200,000 tons to less than 800,000. Anything short of ideal planting and growing conditions in 1986 will further delay the regeneration of the Cuban cane fields, and production may not fully recover before 1988.

Bad weather in 1985 paradoxically led to a bumper sugar crop, while normal weather in 1986 has produced a disastrous crop. Spring drought in the northern Caribbean gave Cuban producers time to complete the 1985 harvest and exceed production goals by cutting immature cane that normally would have been left until the following season. But the drought delayed the regrowth of the next year's crop and reduced the supply of mature cane. A fall hurricane brought needed rain for the new crop but damaged growth for the 1986 Cuban harvest.

Caribbean governments' attempts to increase production of nontraditional crops for export appear to be gaining momentum. Production of nontraditional crops, including winter fruits and vegetables for the U.S. fresh market, is expected to grow slowly but steadily in all Caribbean Basin Initiative (CBI) countries. Nevertheless, Caribbean agricultural output is not expected to show a significant upturn under the new policies before 1987 or 1988. Thus, the demand for U.S. agricultural products is expected to remain strong throughout the remainder of the decade, as per capita food production is not expected to turn around soon.

Andean Crop Production Up in 1986

The Andean region's 1985/86 crop prospects are generally good as the region recovers from the 1985 drought. Although production gains are a major factor affecting U.S. exports to this $1.2-billion market, other factors are also important. Some countries have devalued their currencies, increasing costs of imported inputs and commodities, even though U.S. export prices have declined. The United States also faces keen competition from other suppliers.

The region's wheat production rose 12 percent in 1986 to 1.6 million tons, as Chile, with three-fourths of production, continues its drive toward self-sufficiency. Rice production declined slightly to 3.6 million tons. Peru's harvest declined for the second year because of lack of rain, and it is importing rice before the main crop is harvested in July.

The major feed grains, corn and sorghum, will register increases as they recover from last year's drought. Venezuela harvested a record corn crop last fall, mostly because of increased area, and is not importing corn. Colombia and Ecuador are expecting record coarse grain crops.

Sugar and coffee production are up in the region. Ecuador has had favorable rainfall for cane. Venezuela is increasing sugar production as it strives to reach self-sufficiency. In Peru, however, the drought that affected rice production also stressed sugar cane. Peru will import some sugar, but will also meet its U.S. sugar import quota. Colombia, Peru (with a record coffee crop), and Ecuador all have ample coffee supplies to take up the export slack caused by Brazil's drought.

Production of oilseeds, cotton, and potatoes will decline in 1986. Oilseed production is down 3 percent, mostly because of Colombia's lower cottonseed crop. Palm oil production continues to expand, especially in Ecuador. Potato harvests were down throughout the region in early 1986. Colombia

and Ecuador suffered hard frosts; Peru had production shortfalls related to lack of farm credit and sharply increased input costs; Chile reports extremely low planted area. Cotton production is down slightly in Colombia because of declining world prices and competition for land from more profitable crops.

Argentine Agriculture and the Debt Crisis

Argentina's $50-billion foreign debt is equivalent to 70 percent of GDP. Interest on the debt equals nearly 50 percent of export earnings, and almost 100 percent of the balance of payments surplus. The country is in an economic cul-de-sac--debt servicing requires economic growth, but economic growth requires savings and investment, which are being completely absorbed by interest payments to overseas banks. Austerity, protectionism, export enhancement, and privatization are being used to generate savings and investments, but the requirements of debt servicing may be more than the economy can support.

Argentina's predicament has forced policymakers to reevaluate economic strategies, and may force the Government to realign itself on the side of agriculture. Traditionally, Argentina has subsidized industrial development by taxing the agricultural sector, but this has not succeeded. Most state-run industries continue to run deficits, while agriculture continues expanding, despite heavy taxation.

Argentina's agricultural sector and grain marketing infrastructure are grossly undercapitalized. Agricultural-sector investments would go a long way toward spurring exports and resolving the economic situation. The Government is already moving toward agricultural reforms, for example, by reducing taxes on agricultural inputs. The most important initiative being discussed is the replacement of agricultural export taxes with land-based taxes.

In 1986, the World Bank approved a $350-million agricultural loan to Argentina, designed to help make the transition from agricultural export taxes to a land-based tax system. Export taxes have been a disincentive to increases in agricultural production. Conversely, land taxes may spur crop production by forcing idle lands and pastures into cultivation and increasing the use of farm inputs. As export taxes are lowered during the transition, price transmission from world prices to domestic prices will be lessened, dampening producer response to world prices. *[Carol Goodloe (202) 786-1663]*

Western Europe

Western Europe's farmers are facing another year of declining incomes, following a 13.5-percent drop in EC farm income in 1985. Earnings from both crops and livestock have been jeopardized by weather, policy decisions, and trade developments.

Adverse Atmosphere

The northwestern parts of the continent, in particular the EC countries, suffered unseasonable coolness during late spring. Crop development was delayed, especially winter-sown grains. Conditions were also wetter than usual, even when a warming trend moved in. Yields for winter-sown grains had been expected to more than make up for static or slightly decreased acreage, but the spring outlook was uncertain.

At the same time, spring sowing was delayed, possibly reducing both acreage and yields from earlier expectations. Along the Mediterranean tier of Europe, however, spring rains relieved damaging drought in Spain, southern Italy, and Greece. Overall, grain output in Western Europe in 1986 should be above 1985, and second only to the record 1984 crop, but price developments are likely to cause a further slide in growers' real income.

The Soviet nuclear accident at Chernobyl has proved particularly distressing to Western European producers of horticultural commodities. Fresh produce became suspect because of possible radiation, and was the subject of many official cautions. Although the instructions were meant to be of limited duration, consumers' return to their usual produce purchasing habits may take longer.

Current circumstances have apparently strengthened some European wholesalers' interest in non-European processed fruits and vegetables. However, an EC ban on fresh food imports from Eastern Europe, in effect

through May 31, perhaps favored some EC growers.

Dairy farmers in most of Europe were similarly menaced by Chernobyl. Milk sales were jeopardized by official warnings against fresh milk consumption by children and pregnant women. Moreover, the already large stocks of surplus cheese suggest that the diversion of milk to cheese production (recommended because radiation should be negligible by the time of marketing) may not recoup lost earnings. Further, the radiation alert necessitated moving dairy animals indoors for feeding, increasing outlays for feed concentrates. Lower grain prices, resulting from EC price decisions and lagging exports, could reduce these costs somewhat, but probably not enough to offset those incurred by the delayed greening of pastures this spring.

Policy Disincentives

In the EC, expanded to include Spain and Portugal, budgetary costs are skyrocketing because of burgeoning stocks and a declining U.S. dollar that increases the cost of the EC's export subsidies. The EC Commission consequently was able to persuade member-country farm ministers to approve policy measures aimed at long-term adaptation of the agricultural sector to budget problems. The measures approved for implementation in 1986/87 are only a start on needed reforms, but will nonetheless undermine producer incomes in the year ahead.

The 1986/87 EC package consists mostly of price freezes and reductions, expressed in terms of the European Currency Unit (ECU). When converted into national currencies, most nominal prices paid to farmers will be up, because the "green" ECU used in farm commodity transactions was revalued relative to most member countries' currencies (the West German mark and the Dutch guilder were unchanged).

Inflation, however, is expected to cause a decline in real prices for virtually all commodities in all countries except Denmark. In addition, in the relatively high-inflation countries---Greece, Portugal, Spain, and Italy---input costs may erode income from farm sales.

The grain sector remains the EC's most troublesome in policy formulation. A 5-percent cut in feed grain intervention prices, including feed wheat, was adopted to help relieve the Community's grain surplus. Also, quality standards for wheat purchased under the intervention program are slated to be stiffened, lowering the average price received by farmers. Furthermore, farmers' operating funds will be reduced by delays in payments for grain delivered early to intervention stocks.

Despite growing EC awareness of its Mediterranean producers, southern Europe's crops were not favored in the 1986/87 price negotiations. The EC made some concessions by reducing prices less than originally proposed, as in the case of stone fruits, and by reducing cuts in the withdrawal prices on surplus fruits and vegetables. The buying-in price for surplus tomatoes has been cut 7.5 percent, rather than the proposed 5 percent.

EC livestock producers expect to be hurt by the recent policy decisions, but more so in subsequent years than in 1986/87. A decision on reform in the beef sector, particularly a proposal to replace the intervention support mechanism with direct aids, has been postponed until the end of the year. Agreement was reached to start a compulsory reduction in national milk delivery quotas on April 1, 1987.

Trade Daunted

Intra-Europe trade in fresh farm products was reduced by the Chernobyl incident, as countries hastened to guard against imports from possibly more contaminated places. The EC could not agree on a maximum allowable radiation level, but prohibited member governments from imposing stricter standards on other members' products than on their own. Ultimately, consumer response will be the decisive factor in determining the impact on intra-EC trade. It also remains to be seen how quickly European consumers will resume purchases of Italian wine in the wake of fatalities resulting from methyl alcohol.

Although initially nonrestrictive, quotas imposed by the United States on imports of EC white wine, chocolate, apple and pear juices, and beer could eventually deal producers a significant setback. The U.S. action came in retaliation for declines in U.S. exports of grain and oilseeds to Spain and Portugal as a result

of their accession to the EC. If the EC does not offer adequate compensation by July 1, 1986, tariffs will be increased on certain EC cheeses, vegetables, and spirits, as well as the items already subjected to quotas. *[Miles Lambert (202) 786-1716]*

USSR

The implications of the Chernobyl nuclear accident for Soviet agricultural production and trade in 1986/87 remain unclear. The reactor is located in the forest zone of the northern Ukraine, less than 10 miles from the border with the Byelorussian Republic. The surrounding region is primarily a feed crop and livestock production area. Sugarbeets are produced intensively south of Chernobyl, but sparsely to the north. Though grain is produced in the area around the reactor, particularly winter wheat, Chernobyl is outside the main grain-producing regions of the Ukraine and hundreds of miles from the milling-quality wheat regions of the southern and southeastern Ukraine.

The Soviets have abandoned agricultural activity within a 30-kilometer (18.6-mile) radius of the reactor. Even assuming all the land within this radius is agricultural, which it is not, this represents only a fraction of 1 percent of total Soviet agricultural land. Whether agriculture has been hurt in a wider region remains uncertain. Production of both milk and leafy vegetables was probably affected by elevated radiation levels well beyond the evacuated 30 kilometers, but to what extent and for how long is unclear.

At least equally uncertain is the potential impact on crops harvested later this year and on meat production. Even if agricultural activity is abandoned within a 100-mile radius of the plant, five times greater than the current radius, less than 3 percent of Soviet grain production would be affected, and about 4 percent of meat and milk production.

Sowing Progress Normal

Sowing of spring crops this year proceeded at an average rate. Area of major crops-- grain, cotton, sugarbeets, potatoes, feed crops, and sunflowerseed-- is expected to remain nearly unchanged from last year. Grain area is estimated at 118 million hectares, virtually the same as last year's 117.9 million. Despite some official concern about the need to increase grain area, the commitment to maintain fallow land in crop rotations, and continued higher feed value yields for roughage crops in northern agricultural lands are expected to keep grain area below its 1976-80 average of 127.9 million hectares.

Smaller Livestock Growth Anticipated

Livestock inventories on state and collective farms had largely regained record levels by June 1, following the modest drawdown in 1984/85. The gradual recovery is expected to result in a 1- to 2-percent increase in livestock production in 1986. Meat production should increase toward the higher end of this range and milk toward the lower.

Such an increase is much less than called for by General Secretary Gorbachev for the latter half of the 1980's. The meat production goal for the end of the decade implies 4.2 percent annual growth between 1985 and 1990.

Reasons for the below-plan meat increase include below-plan gains in nongrain feed production, an unwillingness to increase grain for feed supplies, and continued quality problems in Soviet feed rations, most notably a shortage of protein. Reaching the livestock production targets may require larger imports of grain, oilseeds, and oilseed meal.

Hard Currency Shortage and Imports

Soviet hard currency earnings for 1986 are expected to decline by roughly $5 to $8 billion, because of lower oil prices and, possibly, lower oil export volumes. The earnings drop is likely to have an impact on the value of Soviet agricultural imports this year and into 1987. To the extent that import prices decline, import quantities will not be affected as strongly.

Grain imports during July-June 1985/86 are estimated at 29 million tons, below 30 million tons for the first time in 7 years. Imports during 1986/87 are estimated at 30 million tons, with virtually no increase in domestic grain use. Lower U.S. grain prices later this year could boost U.S. grain sales to the Soviets in the coming October-September agreement year. Thus far, Soviets have

purchased 6.8 million tons of corn, versus a minimum requirement of 4 million, but only 153,000 tons of the 4-million-ton minimum for wheat.

U.S. soybean exports to the USSR in this agreement year have reached 1.5 million tons. The rise in Soviet soybean imports cannot be explained by the domestic oilseed harvest, which actually increased in 1985. The larger imports only make a dent in the Soviet feed protein shortage, which has been calculated by the Soviets to be as large as 13 million tons of soybean meal equivalent. The soybean imports of early 1986 may represent a reversal in policy, favoring increased reliance on foreign protein supplies as a means of improving Soviet feeding efficiency. *[Edward Cook (202) 786-1710]*

Eastern Europe

Agricultural performance in 1985 was mixed. The agricultural sector performed rather well in the northern countries (Poland, Czechoslovakia, and the GDR), while production declined sharply in the south (Hungary, Yugoslavia, Romania, and Bulgaria) as the harsh 1984/85 winter was compounded by spring and summer drought. With more normal weather, agriculture should improve in 1986. The 1985 production shortfalls will increase U.S. agricultural exports to the region, but East European imports will continue to be limited by financial constraints.

Grain Production Down 7 Percent

Grain production in 1985 is estimated at 106 million tons, 7 percent below the 1984 record, but the region's third largest harvest. Wheat production fell 11 percent and coarse grain output was off 6 percent. The declines occurred in the drought-stricken south. The northern countries enjoyed record or near-record production after a fourth straight year of favorable weather. Because of the production decline, Eastern Europe will likely again become a net importer in 1986 after being a net exporter in 1985.

Little change is expected in grain production for 1986. Winter conditions have been favorable in the northern countries; however, continued dry weather harmed emergence of fall-sown crops in Bulgaria and delayed sowing in Yugoslavia. Moreover, Yugoslav winter wheat area was below plan, as unfavorable prices reduced producer interest in wheat.

Oilseed Production Unchanged

Total 1985 oilseed production, at 4.7 million tons, was almost unchanged from last year. However, soybean production declined 21 percent due to dry weather in the major producing countries, Yugoslavia and Romania. Sunflowerseed production, which is more drought-resistant, fared considerably better, rising 1 percent. Rapeseed production rose 11 percent due to a 19-percent increase in Poland. Total oilseed production should rise in 1986, with increases in soybean and sunflowerseed production, but a decline in rapeseed.

Livestock Output Declines Slightly

Animal numbers fell throughout the region in 1985, due to drought and restrictions on feed imports. The poultry flock declined nearly 3 percent, and hog numbers an estimated 2.4 percent. Meat production was virtually unchanged from 1984. A 9-percent drop in Hungarian and Yugoslav output was offset by increases in Poland and Romania.

Only Poland is likely to show an increase in animal numbers, although the rise will by no means represent a recovery to the 1976-80 level. Meat production may fall in the southern countries, depending on the impact of the drought. But Poland should see another increase, and production in the GDR and Czechoslovakia will be at or slightly above current levels.

U.S. Exports To Continue Low

The value of U.S. agricultural exports to Eastern Europe fell 37 percent to $479 million in 1985, the lowest since 1972. Grain exports, at $113 million, were down 29 percent from 1984, while the value of U.S. soybean exports plunged 65 percent. Both declines resulted from falling demand, as the U.S. share changed little from recent years. U.S. exports in 1986 should rise in volume. In response to drought-induced shortfalls, Bulgaria and Romania have been importing far more corn than in previous years, while Yugoslavia and Romania are importing more soybeans.

However, because of falling U.S. prices, exports may not rise much in value.

Impact of Chernobyl Accident Uncertain

The most immediate impact of the accident at the Chernobyl nuclear power plant on Eastern Europe has been government warnings against the consumption of fresh vegetables and milk from grass-fed cows. The ensuing demand for nonfat dry milk has prompted a shipment to Poland of 1,182 tons from the United States and a similar amount from the EC. On May 31, the EC ban on food imports from Eastern Europe was replaced by a set of standards of acceptable radioactivity. However, the ban may have cost Eastern Europe $200-$300 million in hard currency earnings. *[Nancy J. Cochrane (202) 786-1710]*

Australia

Eastern Australia experienced unusually dry, hot weather in the early months of 1986. Lack of pasture encouraged livestock producers to take animals off grass earlier than planned. Summer oilseed and sorghum crops were reduced, but cotton benefited from the dryness. The autumn break of cool weather and rain arrived in May, allowing farmers to begin planting winter crops. However, optimum planting dates had passed for some crops, and lack of subsoil moisture will increase farmers' dependence on winter and spring rainfall.

Crop Area May Decline

Because of low prices, the area planted to crops likely will decline in 1986/87. Wheat area is estimated down 2 percent, and coarse grain and rice area may drop almost a tenth. Wheat is the only grain to receive a price guarantee. Oilseed area is expected to recover from 1985/86's weather-induced decline. Area planted to lupins and other legumes will continue to expand because of their importance to livestock production.

Wheat production may decline 1 million tons to 15.3 million in 1986/87. Exports are forecast at 14.5 million tons, indicating Australia's stocks may finally be reduced from recent burdensome levels. Coarse grain production is expected to decline about 12 percent, and exports may drop 17 percent to 4.4 million tons. Low prices should stimulate some increase in domestic use. Cotton production may drop a fifth.

Australian crop area

Crop	1984/85	1985/86	1986/87 F
	Thousand hectares		
Wheat	12,078	11,959	11,750
Rice	126	108	100
Coarse grains (incl. triticale)	5,602	5,748	5,250
Cotton	183	173	150
Other oilseeds	525	472	530
Lupins & peas	740	821	970
Total	19,254	19,281	18,750

F = USDA forecast.
Source: Australian Bureau of Statistics.

Drought Affects Cattle Outlook

The dry summer in Queensland and New South Wales caused producers to increase cattle slaughter early in 1986. The heavy slaughter coincided with the beginning of the U.S. dairy buyout program and an appreciation of the Australian dollar. The resulting price drop dampened producers' enthusiasm for raising beef cattle. Beef and veal production is estimated up 5 percent in 1985/86 and 2 to 3 percent in 1986/87. The buildup in cattle numbers may be slower than earlier anticipated.

Milk production leveled off in 1985/86 at just over 6 million liters, and output may decline next year for the first time since 1980/81. Exportable supplies of butter and skim milk powder likely will shrink. *[Sally B. Byrne (202) 786-1611]*

Japan

U.S. Farm Exports Decline

U.S. agricultural exports to Japan are forecast at $5 billion in fiscal 1986, down from $5.7 billion last year. Lower U.S. farm prices and reduced sales of coarse grain and cotton due to increased competition are responsible. The yen's appreciation has resulted in lower feed prices and increased profit margins for Japanese livestock producers, stimulating some growth in demand for coarse grain and oilseeds. However, U.S. grain exports have not benefited as fully as they might have, because of competition from other grain-supplying countries such as the PRC,

South Africa, and Argentina. Intense competition in the Japanese cotton market from the PRC, Pakistan, and Australia has cut into the U.S. market share, although sales are expected to improve later in the year, when U.S. prices become more competitive under the new farm legislation.

Japan To Reduce Milk Surplus

Japan's fluid milk consumption declined in 1985 for the first time in the post-war period. Dairy producer groups recently decided to cut milk production quotas for individual producers to reduce total output by 3.1 percent for the current Japanese fiscal year (April 1986-March 1987). To achieve this, dairy groups, with the guidance and financial support of the Ministry of Agriculture, Forestry, and Fisheries (MAFF), will accelerate the culling of old cows and will cull an additional 30,000 milk-producing cows. The program is to begin in June and be completed by the end of March 1987. In 1985, Japan's milk production totaled 7.4 million tons, of which 4.3 million tons was marketed as fluid milk.

As a result of the increased slaughter of dairy cows, Japan's beef production, derived chiefly from dairy steers and culls, is projected at 537,000 tons in 1986, up slightly from an earlier forecast but below last year's level. In 1985, beef output rose 4 percent to 555,000 tons, attributed to heavy slaughter of Wagyu cattle (the native breed).

A planned increase in beef imports, scheduled in the 1984 U.S.-Japan understanding on beef, and the stepped-up culling could ease rising producer prices for beef. At the end of March, MAFF decided to reduce producer support prices for dairy beef, pork, and milk for manufacturing use for Japan fiscal 1986. A large government budget deficit and lower feed costs due to the stronger yen were behind the reductions. *[Lois A. Caplan (202) 786-1611]*

Middle-Income East Asia

Despite expected accelerated economic growth in middle-income East Asia (South Korea, Taiwan, and Hong Kong), U.S. farm sales to the region are forecast at $2.8 billion in fiscal 1986, around 10 percent less than last year. Lower commodity prices and sharply reduced cotton exports more than offset increased exports of wheat, coarse grains, soybeans, and cattle hides.

U.S. To Recover Coarse Grain Market Share

Taiwan bought 200,000 tons of corn from South Africa in January-March 1986, and South Korea imported 355,000 tons of feed wheat from Australia, Canada, and the EC. Nevertheless, U.S. coarse grain sales to the region are expected to increase 13 percent in fiscal 1986 to 5.7 million tons, because of less competition from the PRC in the South Korean corn market.

U.S. Cotton Exports To Fall Sharply

Currency realignments are making the region's textile products more competitive, especially in Japan and Europe. But U.S. cotton exports to the region are not benefiting; because of higher prices, U.S. cotton exports are forecast to fall to 200,000 tons in fiscal 1986, 50 percent below 1985. An upturn in U.S. exports to the region is expected after July when U.S. cotton prices become more aligned with competitor prices under provisions of the 1985 Food Security Act.

Taiwan Sells 275,000 Tons of Rice

Beginning in early March, Taiwan reduced its rice export prices to conform to Thailand's. Consequently, by mid-April, Taiwan had sold about 275,000 tons, the 1986 limit agreed upon by Taiwan in a 1984 understanding with U.S. rice exporters. Subsidizing rice exports is one method Taiwan is using to remedy its surplus problem, in addition to decreasing production and subsidizing rice for feed. Because of declining world rice trade, Taiwan's exports dropped to only 38,000 tons in 1985. Taiwan rice exports will total about 300,000 tons in 1986, together with about 28,000 tons sold last year but exported this year. *[Sophia Wu Huang (202) 786-1611]*

China

Grain, oilseed, and cotton output is forecast to increase from 1985. China will continue to be a strong competitor in international cotton and rice markets, but its

coarse grain and oilseed exports are expected to be down marginally in 1986. Good supplies of domestically produced crops and limited quantities of foreign exchange will constrain agricultural imports.

Larger Grain Crop Forecast

Grain area has fallen each year since 1983. The declines in area and output in 1985 caused authorities to increase pressure on farmers to expand area to 110 million hectares this year. Grain yields are forecast to rise 3.5 percent over last year's weather-affected outturn. Total grain output is expected to reach just under 400 million tons, well above last year's 379 million, but below the record 407 million in 1984.

Wheat area is forecast to expand 370,000 hectares to 30.0 million. Expanded area and normal yield increases should produce a record harvest in 1986. However, dry weather in the North China Plains may reduce winter wheat yields, and the wheat crop may drop below the 1984 record of 87.8 million tons.

Many factors will affect wheat imports in 1986/87. Those tending to raise imports include rising per capita incomes, population increases, and an expected fall in wheat prices. Factors that may lower wheat imports include the forecast of a good crop this year and an acute shortage of foreign exchange. The various factors indicate imports for marketing year 1986/87 will rise to 7.0 million tons, up 1 million from a year earlier.

Rice output is forecast to rise above 1985 but be below the record 178 million in 1984. Rice exports likely will continue at last year's pace of about 1 million tons.

Coarse grain production should rebound from last year's weather-affected crop, and rise to 94.3 million tons, still below the 1984 record of 95 million. China's coarse grain exports are expected to reach 5.0 million tons in marketing year 1985/86. In fiscal 1987, however, exports likely will fall to 4.2 million tons because of domestic demand for coarse grain for feed.

Cotton and Oilseed Output To Rise

Cotton output in 1986 is forecast by the U.S. Agricultural Counselor in Beijing to rise 3.6 percent to 4.3 million tons. Area may be slightly under that of last year, but yields should increase. Efforts will be made to improve the lint quality. China will aggressively promote its raw cotton sales and exports could reach 2 million bales (435,000 tons).

Total oilseed output is forecast to increase more than the 1985 rate which was 2 percent. Area is expected to expand and yield increases will contribute about one-quarter of production growth. Record crops of peanuts, rapeseed, and sunflowerseed are forecast. Soybean output for 1986 is forecast to be a record. Rising procurement prices, and internal and foreign demand will boost production. Soybean and soybean meal exports in 1986 are expected to be slightly lower than in 1985 because of the rapid development of livestock output. *[Frederick W. Crook (202) 786-1616]*

South Asia

Record Wheat Crops in India and Pakistan

India's 1986 wheat crop is estimated at a record 47 million tons, with good weather and increased input use stimulating record yields. Procurement of wheat in price support operations is behind last year's pace, in part because of measures to boost private trading, and subsidized distribution is up significantly. These developments may prevent a further increase in government stocks in 1986/87, but stocks will likely remain well above target. Procurement from the 1985/86 rice crop is matching last year's record, leading to above-target stocks and prompting initiatives to export up to 1 million tons of coarse varieties of rice.

Pakistan's 1986 wheat harvest is estimated at 13.5 million tons, 9 percent above the previous record crop in 1983, with good weather assisting a sharp rebound in yields. Import needs will drop sharply in 1986/87, and exports may be renewed. Despite an 11-percent drop in 1985/86 production, Pakistan's rice exports are up sharply and may reach a record 1.2 million tons in 1985/86 (July/June).

Bangladesh's wheat crop is estimated to be down marginally in 1986 and, unless there is

another strong increase in rice production in 1986/87, import needs may rise. Sri Lanka's 1986 rice crop may be down 10 percent from last year's record because of heavy flooding, boosting rice import needs in 1986/87.

Indian Edible Oil Buying May Pick Up

Despite a 10-percent drop in production, India's 1985/86 (October/September) edible oil imports are expected to be down 17 percent to 1.1 million tons because of high stocks and measures to curb imports and stimulate production. Only about 60 percent of the forecast total was purchased for delivery through June, but buying is expected to pick up over the next several months as rising domestic prices lead to higher government allocations of imported oils.

Pakistan's edible oil imports are expected to be up 5 percent to 700,000 tons in 1985/86, with record domestic output preventing stronger growth in import demand. A recent decision to replace price and import controls on edible oils with an import duty is unlikely to affect imports in the near term.

Palm oil is forecast to account for nearly 70 percent of the region's edible oil imports in 1985/86 because of its low price relative to soybean oil. India's cash purchases of soybean oil are forecast at a 10-year low of 225,000 tons, while Pakistan's purchases are buoyed at 200,000 tons by U.S. concessional and credit financing.

Record Cotton Crops in India and Pakistan

Pakistan's 1985/86 cotton harvest is estimated at 5.7 million bales, 21 percent above the previous year's record. Consecutive record crops are stimulating a sharp increase in exports, particularly to East Asian markets. Exports are estimated at 2.75 million bales, compared with 1.17 million last year. India's 1985/86 cotton crop is estimated at a record 8.4 million bales, with exports forecast at 300,000 bales. Record cotton crops in the region have been fueled largely by use of higher-yielding improved varieties and, despite some weakening of local prices, production is not projected to fall substantially in 1986/87 if weather is normal. *[Maurice R. Landes (202) 786-1614]*

Southeast Asia

Economic Growth To Slow

Regional economic growth in 1986 is uncertain and hindered by low commodity prices. Indonesia, and to a certain extent Malaysia, have been hard hit by a sharp decline in petroleum export prices. Their growth rates may be less than 3 percent in 1986. The Singapore economy may contract about 1.5 percent, while little or no growth appears likely in the Philippines. The Thai economic outlook is slightly better and real growth of 4 percent may be realized.

Indonesian Agriculture Diversifies

The 1985 rice crop of 26.5 million tons is expected to be matched by an equally bountiful crop in 1986. While rice continues to dominate Indonesian agriculture and food for domestic consumption remains a top agricultural priority, there is an increasing emphasis on export crops--rubber, palm oil, sugarcane, coffee, cocoa, and tea. Increased output of these crops is expected in 1986. A government plan calls for large investments to expand substantially the area planted to these cash crops over the next 5 years.

Bumper Philippine Rice Harvests

While much of the Philippine economy was deteriorating, rice output in 1985/86 (July/June) rose 6 percent above a year earlier to a record 5.6 million tons. Aside from some typhoon damage in the country's major producing region of Central Luzon, weather conditions during the growing season have been good. Increased plantings were encouraged by expectations of better rice prices following the removal of retail price ceilings.

Malaysia Hit by Low Palm Oil Prices

Malaysia's record 4.1-million-ton palm oil production in 1985, along with a world surplus of fats and oils and sluggish demand, depressed palm oil prices. Low export prices for palm oil and other export commodities--tin, rubber, and petroleum--are responsible for Malaysia's major economic problems. Recent palm oil prices are below the unit production costs of many estates. Palm oil production is forecast

at a record 4.8 million tons in 1986, making price prospects bleak.

Thailand Reacts to Food Security Act

Thailand has continued its strong reaction against the rice provisions of the U.S Food Security Act. Thailand has sought to boost exports by eliminating the regulatory measures designed to raise domestic paddy prices. In addition to the elimination of stock-holding requirements and suspension of export taxes for all grades of rice, the rediscount rate on promissory notes for exporters was dropped from 8-9 percent to 7 percent. A recent barter arrangement with Brazil is designed to exchange rice for tractors. *[Jitendar S. Mann (202) 786-1614]*

Middle East and North Africa

Region's Grain Output Rises

Grain output in the Middle East and North Africa should increase slightly with higher yields because of good rainfall during the winter and spring in some major producing regions. This will more than offset reduced harvests in Tunisia, Israel, and Syria. Gains for 1986 are likely to be less than the 6-million-ton rise in 1985, when grain production reached a record 52.7 million tons. Larger harvests of wheat and barley are expected in Turkey, Iran, Iraq, and Morocco. Total wheat production increased 3 million tons to 29.4 million in 1985 and might surpass 31 million in 1986. Barley output should be about 13.5 million tons, 2 percent over 1985. Egypt accounts for about two-thirds of the 6 million tons of corn produced in the region, and Turkey most of the remainder.

The region's grain imports peaked at 46.5 million tons in 1984 and accounted for 50 percent of the grain supply. In 1985, as production increased, imports declined to 42.3 million tons. Both imports and production are expected to increase in 1986 because demand is strengthened by subsidy systems and stocks are relatively low, except for Saudi Arabia. In 1986, the regional supply is expected to rise to about 97 million tons, including 44 million of imports.

Turkey's grain crop is forecast slightly higher than last year with gains in wheat, barley, and corn. With the exception of corn, however, grain output has stagnated, and dramatic gains in the near future are unlikely, especially as world prices continue to decline. Turkey continues to import wheat and coarse grains, although to date only wheat has been purchased this year. After declines in sales the last 2 years, the United States again became the principal supplier in 1986 under EEP. To date, 500,000 tons have been purchased under the EEP, and funds are available for the same amount before the end of fiscal 1986.

Iraq has used about half the $500 million in GSM-102 credit for fiscal 1986. It now appears that about 80 percent may be used by September 30 when the unused portion lapses. As a result, U.S. agricultural exports to Iraq should again surpass $400 million. This would be in contrast to 1985, when only half of the $663 million in GSM-102 credit was used, and the $75 million for barley was untouched. This year, Iraq has made good use of the credit to purchase wheat, wheat flour, rice, corn, soybean meal, dry beans, and seeds. Some of the $20 million scheduled for tobacco was shifted to dry beans and soft drink concentrates. Iraq has arranged to buy 5,000 tons of tobacco from Zimbabwe and still has stocks of more expensive U.S. tobacco from 1985 deliveries.

Very heavy rainfall in western Iran caused floods in early May which left more than a dozen people dead and thousands homeless. Yet the unusual rain should benefit the 1986 wheat and barley crops, with wheat output above last year's 5.3 million tons. Despite the larger crop, Iran's wheat imports are expected to remain near 3 million tons because of inadequate stocks.

In Saudi Arabia, another bumper wheat crop, estimated at 2 million tons is being harvested, causing storage problems and leading to plans to increase exports. Concern about radiation caused Saudi Arabia to ban imports of fresh produce from Europe. The ban has been lifted for Western European produce, but continues for Eastern European produce.

For the third year in a row, Israel has suffered from drought, resulting in a grain crop failure. The upcoming wheat crop is estimated at 100,000 tons, the lowest since

1963. Barley production is practically wiped out, and water restrictions during the upcoming summer months will lower the output of corn and sorghum. For the United States, this means somewhat higher wheat, coarse grain, and possibly soybean exports to Israel. Inadequate rainfall reduced Syria's wheat and barley output, with wheat estimated at 1.4 million tons, one-fifth below 1985. The Government's decision to increase the wheat procurement price 12 percent is expected to result in increased domestic purchases and reduced imports. In April, the United States extended Syria EEP credit for more than 750,000 tons of wheat for fiscal 1986, but there have been no sales so far. In 1985, Syria imported 1.3 million tons of wheat; 600,000 tons from the EC, 181,000 from Canada, 100,000 from Argentina, and only 58,000 from the United States.

Lower-than-normal rainfall has reduced Jordan's wheat and barley crops. In 1985, wheat imports were 483,000 tons, with 200,000 from Australia and 190,000 from the United States and 93,000 from other suppliers. Through the extension of $90 million of new CCC credit, Jordan's purchases of U.S. wheat are estimated at 280,000 tons, of which 185,000 were shipped by May. Also, 21,000 tons of U.S. rice were exported through the EEP. Jordan's barley needs are expected to be met by Iraq, which is expecting an excellent harvest.

The Yemen Arab Republic (YAR) has purchased 80,000 tons of U.S. wheat and 33,000 of wheat flour this year under the EEP program. Negotiations continue for the purchase of 100,000 tons of wheat flour under P.L. 480, but no sales were made as of the end of May. The YAR wheat market is estimated at 650,000 tons this year, with Australia the major supplier.

Weather Dominates North Africa Grain Situation

Weather dominates the North African grain situation this year. Good weather, following several years of drought, may give Morocco a record grain harvest. Morocco forecasts a harvest of about 3 million tons of wheat and 2.8 million of barley. Morocco is forecast to import 1.2 million tons of bread wheat, four-fifths from the United States. Algeria also has had good weather, and grain output may slightly exceed last year's record 3.1 million tons. Production is expected to reach 1.1 million tons for durum, 560,000 for bread wheat, and 1.3 million for barley.

Unusually bad weather has afflicted Tunisia. Grain production is expected to fall to 600,000 tons, one-third of last year's record crop. Wheat production is not expected to reach 500,000 tons, and barley production is forecast at 110,000 tons. The poor harvest is likely to double Tunisia's wheat imports to 1.25 million tons in 1986/87.

The North African nations have been the focus of considerable EEP activity. Algeria has received EEP offers for 500,000 tons of barley, 500 million eggs, 100,000 tons of flour, 250,000 tons of semolina, 1 million tons of non-durum wheat, and 5,000 dairy cattle. Morocco has EEP credits for 1.5 million tons of wheat and 4,000 dairy cattle; Tunisia has EEP credits for 300,000 tons of wheat and 4,000 dairy cows.

Egypt has already begun using the $50 million for wheat and $70 million for wheat flour available under GSM-500 for fiscal 1986--a combination of GSM-102 credit guarantees and EEP. As of May 28, only 197,000 of wheat from the second 500,000 tons was sold. Egypt purchased 500,000 tons of wheat and 175,000 tons of wheat flour under the EEP during fiscal 1985. Egypt made full use of the $21 million available for frozen poultry through EEP. Egypt recently purchased 175,000 tons of U.S. corn using $19.6 million credit under GSM-102. The $70.5 million GSM-102 credit for oilseeds and products has had only $4.5 million in purchases, but all the $75 million for tobacco should be used by the end of the fiscal year. *[John B. Parker (202) 786-1680]*

WORLD TRADE AND FOOD POLICY

U.S.-EC Enlargement Dispute

On March 31, the United States announced it would take trade measures under section 301 of the Trade Act of 1974 in response to EC trade barriers arising from the January 1986 accession of Spain and Portugal, and their adoption of the Common Agricultural Policy (CAP), effective March 1.

The United States initially proposed withdrawal of tariff concessions and equivalent quotas on certain candy, chocolates, fruit juices, beer, and white wine, in response to EC marketing limitations on oilseeds in Portugal, as well as the reservation of 15.5 percent of Portuguese grain requirements for EC suppliers.

The United States further proposed withdrawing tariff concessions on certain meats, cheeses, vegetables, beer, white wine, and spirits, in response to EC withdrawal of tariff concessions and application of a variable levy on Spain's imports of U.S. corn and sorghum.

The Office of the U.S. Trade Representative announced that the restriction on Portuguese grain imports could affect approximately $357 million worth of U.S. exports, and lost trade is estimated at approximately $55 million. The withdrawal of Spanish tariff bindings and imposition of variable levies on imports of corn and sorghum affects Spanish imports from the United States that averaged approximately $624 million annually in 1981-83.

Effective May 19, the United States announced measures that would "mirror" EC measures, applying nonrestrictive U.S. quotas that would take effect only to the extent that EC measures restrict U.S. exports to Portuguese markets. The United States has also withdrawn equivalent tariff concessions in response to the EC unbinding of the 20-percent tariff on Spanish corn and sorghum imports, but has not increased these tariffs in an effort to resolve compensation negotiations by July 1. The EC has announced that it will respond with "equal measures" to U.S. import quotas.

Canned Fruit Dispute Settled

The United States and the EC have settled a dispute over EC production aids to canned peaches, pears, fruit cocktail, and raisins. The United States initiated a section 301 case against these EC subsidies in October 1981. A panel was formed under the General Agreement on Tariffs and Trade (GATT) settlement mechanism in March 1982, with the United States arguing that tariff concessions negotiated on these products were nullified by EC production subsidies. The panel report, after several rounds of negotiations and revision, was issued in July 1984, noting that EC production aids nullified U.S. benefits from tariff concessions on canned peaches, pears, and fruit mixtures, but not on dried grapes. However, the EC has repeatedly put off the report's adoption because of possible implications regarding the free-trade area provisions of GATT Article XXIV. EC concerns center on the nullification of benefits of tariff concessions that result from the introduction of new domestic support measures.

Nonetheless, the United States and the EC notified the GATT Council on February 12 that agreement had been reached whereby: (1) the United States takes account of the fact that production aids for canned pears applied over the past 3 years have been autonomously reduced, and that there is a quota on the amount eligible for such aid; (2) the EC would undertake to reduce production aids for canned peaches 25 percent in 1986-87 compared with 1985-86; and (3) the EC could assure that further production aids will be fixed so as to not subsidize the processing operation for peaches in syrup, either canned or as part of fruit mixtures.

OECD Ministerial and G-7 Summit Meetings

Ministers from the 24 industrial countries in the Organization for Economic Cooperation and Development (OECD) had their annual meeting on April 17-18 in Paris to review the economic situation and policies among the developed nations. Their final communique strongly endorsed the beginning of trade liberalization talks in September 1986 under the GATT. The ministers recommended including trade in services and trade-related issues, as well as reaffirming their Governments' safeguards and rollback commitment "to avoid new restrictive measures and to pursue their efforts to reduce trade restrictions and trade-distorting measures."

Heads of State and Government of the seven major industrial democracies met on May 4-6 in Tokyo, where the leaders reaffirmed their countries' trade commitment to "halting and reversing protectionism and to reducing and dismantling trade restrictions,"

as well as "the strengthening of the new system and functioning of the GATT." *[Ted Wilson (202) 786-1688]*

COUNTRY BRIEFS

Canada Requests Duties on U.S. Corn

On May 12, the Ontario Corn Producers Association (OCPA) petitioned the Canadian Government to impose countervailing duties on corn imports from the United States. The OCPA claims U.S. corn producers are heavily subsidized as a result of the 1985 Food Security Act that provides deficiency payments and other Government supports. In recent years, the United States has filed numerous countervailing duty cases against Canada but this case is the first brought against the United States. The Canadian procedures are similar to U.S. procedures; determinations of both subsidy and injury must be found. The Government must decide by early July whether to accept the case. If subsidization is found, preliminary duties on U.S. corn imports could be in place by early October.

The province of Ontario produces most of Canada's corn. Production has increased steadily over the past 15 years and U.S. exports have dropped off. Ontario is now self-sufficient in corn and exports to neighboring provinces. *[Carol Goodloe (202) 786-1663]*

Australian Policy Statement Issued

On April 15, in response to the depressed farm income situation, the Government of Australia presented a comprehensive policy statement on the rural economy. The report emphasizes linkages among economic, trade, and agricultural policies.

The principal cause of the rural recession was identified as falling world prices resulting largely from other producers' export subsidies and domestic support programs. Thus, diplomacy is a major part of the Government's policy agenda.

Increased funding, about $A90 million in 1986, will be provided to improve marketing of agricultural produce, support research and development, subsidize fertilizer use, and provide loans under the Rural Adjustment Scheme. Federal government outlays on agriculture total around $A450 million annually. Import tariffs on farm inputs are being replaced by bounties to domestic manufacturers, and changes in fuel taxes and pricing arrangements are reducing farmers' costs. Grain handling costs will be examined for potential savings. The Government has dropped plans to isolate farm losses from off-farm income for taxation purposes. Services to rural residents and communities will be improved.

Despite criticism from farming interests, the Government will not change its macroeconomic policy, which is designed to restrain inflation and maintain labor productivity. *[Sally B. Byrne (202) 786-1611]*

Nigeria Unlikely To Ban Wheat Imports

In May, Nigerian President Babangida announced a possible wheat import ban. However, a reading of the President's statement, "Let me therefore seize this opportunity to further state the intention of the Government to put an end to the importation of wheat as from 1987," leaves the impression that the matter is still under discussion. The U.S. Agricultural Attache in Lagos interpreted this statement as a trial balloon. Nigeria now imports 1.6 million tons of wheat annually. A ban would seriously disrupt food supplies and, therefore, is unlikely in an already sensitive political and economic climate.

Other Commodity Imports Banned

Since October, Nigeria has banned imports of corn, rice, and vegetable oil to conserve foreign exchange. The bans have applied only to commodities which are also

Nigerian wheat and flour imports

Year	Imports		U.S. exports		U.S. share
	1,000 tons	Million dollars	1,000 tons	Million dollars	Percent
1980	1,176	219	1,002	181	85
1981	1,517	297	1,203	225	79
1982	1,605	295*	1,285	215	80
1983	1,498	270*	1,316	215	88
1984	1,666	290*	1,617	256	97
1985	1,550	260*	1,473	226	95

* Estimated.

produced domestically. For example, imported corn supplied only about 6 percent of total use, while imported rice and vegetable oil each accounted for about one-third of consumption.

Wheat, on the other hand, is not produced in significant quantities, and imports account for 98 percent of total use. The Government's current policy is to substitute other flours, such as corn, sorghum, millet, cassava, or yam for wheat in bread making. Little experimentation with these flours has been done in Nigeria, and attempts in other African countries have not been successful because of technical problems and consumer resistance. Bread has become important in Nigerian diets because it is inexpensive and requires no preparation. Adding a bread shortage to the other imported food shortages in Nigeria could lead to protests.

1986 Wheat Imports Down

Nigerian wheat imports in 1986 are running much below 1985 because the Government delayed issuing import licenses from January to the end of March, causing most mills to close. Wheat imports resumed in May, but the quantity is not likely to reach the 1985 level. The lack of Export-Import Bank insurance (FCIA), withheld because Nigeria has overdue debts, has led to further delays in shipments of U.S. wheat. *[Margaret Missiaen (202) 786-1680]*

New Direction in Nigerian Policies

As Nigeria continues to suffer from declining petroleum revenues, the Government is taking a new approach to encourage agriculture and diversify exports. Direct Government involvement in agriculture is being curtailed in favor of increased incentives to private producers.

In April, the first four state-owned agricultural firms were offered for sale by competitive bidding. This step toward fulfilling the 1985 promise to cease all agricultural production by the state follows a decade in which state production was a centerpiece of Government agricultural plans.

Also in April, the Government announced the gradual abolition of its six commodity marketing boards. The importance of the boards had declined in recent years because they offered prices significantly below those available from private traders. Cocoa has been the only major agricultural export and the only commodity marketed principally through a board. *[Carl Mabbs-Zeno (202) 786-1680]*

South Africa Increases Corn Prices

In May, the South African Maize Board increased producer prices for yellow corn 5 percent. The new price is equal to $97.06 per ton, with 1 rand equaling $0.43. This is an attempt to partially meet higher production costs, and keep up with 20-percent inflation, without pushing prices much further above world markets.

Earlier in the year, South Africa was losing about $40 per ton on exports of yellow corn. To help stabilize the board's financial position, consumer prices of white corn, the staple food, have been increased nearly 14 percent, and yellow corn nearly 10. The domestic wholesale price of yellow corn, largely used as feed, is up to $3.07 per bushel effective May 1. In contrast, U.S. No. 2 yellow corn in Central Illinois averaged about $2.30 per bushel during March and April. Consumer corn prices will be increased about 1.6 percent each month after May 1 to cover storage and handling costs.

With area up 4 percent from 1985, South Africa's corn production in 1986 is estimated up 3 percent to 8 million tons, with an average yield of 31.5 bushels per acre. *[Larry Witucki (202) 786-1680]*

U.S. Imports of Iranian Pistachios Up

U.S. pistachio imports from Iran more than doubled during January-March 1986 to 2,560 tons for $7.2 million. This was apparently an effort by Iran to beat the U.S. countervailing duty of 192 percent enacted March 5, 1986, after the 57 percent implemented in January. Iran's policy of promoting exports of petroleum and food exports to the United States while boycotting U.S. food exports now faces problems.

Iran's pistachio exports more than doubled between 1982 and 1984 and remained at about 22,000 tons in 1985. Exports to the United

States, the EC, and Asian markets were up dramatically.

In the last 2 years, Iran provided about half the pistachios sold in the United States, and the United States accounted for about half Iran's exports. In 1984, U.S. pistachio imports from Iran more than tripled to 9,107 tons, and the value nearly quadrupled to $40.5 million. In 1985, imports increased to 12,040 tons. The average price declined from $4,876 to $2,896 per ton between 1983 and 1985, and in January-March 1986 was $2,800 per ton. Iran reduced the price just enough to take a greater share of the U.S. and EC markets, and it was this action, plus Iran's refusal to respond to queries about prices and costs of production, which led to the original countervailing duty. Turkey appears to have been hurt by the Iranian tactics, and stocks have accumulated there. Also, U.S. exports to Europe have been hampered by Iran's sales push. *[John Parker (202) 786-1681]*

THE U.S. DOLLAR AND WORLD PRICES

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Abstract: Movements in the value of the U.S. dollar are strongly (and inversely) related to the prices of a wide variety of internationally traded goods, including agricultural products. When the dollar rises, world prices (in dollars) fall. The reverse is the case when U.S. currency declines in value. These relationships are true of both general and specific price series, given trends longer than 2 years. The relationships are explained not only by the price effects of exchange rate movements, but also by underlying factors that cause the dollar to rise and fall in value.

Keywords: Exchange rates, prices, interest rates, money supply, money demand, U.S. dollar, world currency.

Movements in the value of the U.S. dollar are inversely tied to price changes for a wide variety of internationally traded goods, including agricultural products. The relationship is straightforward. When the dollar rises, world prices (in dollars) fall. The reverse is the case when U.S. currency falls in value. This is due not only to the price effects of exchange rate movements, but also to those factors that cause the dollar to rise and fall in value. The movements in the dollar's value are reflections of its use by the world community. Only the widespread acceptance of U.S. currency in international markets can lead to the kinds of consistent relationships examined here.

The World's Money

As of the end of 1982, the dollar comprised 60 percent of all foreign exchange reserves and 75 percent of those held in convertible currencies (5)*. In addition, the dollar is the basis for 80 percent of all Eurocurrency deposits (3). More countries' currencies are fixed to the dollar or on a sliding peg against it than to all other currencies combined (4, March 1986).

The dollar's wide use as a medium of exchange in world trade is also well known, but less quantifiable than the total of dollar holdings. It seems likely, however, that at least 70 percent of world trade occurs through an exchange of U.S. dollars.

Two properties are immediately evident from this situation. First, the U.S. dollar is generally acceptable either as a means of purchase and receipt or as a crucial intermediary to facilitate secondary transactions. Second, the tendency towards using U.S. dollars must be a result of its being the least costly currency to hold or to purchase.

*Numbers in parentheses refer to literature cited at the end of this article.

Indeed, one could also argue that the pervasive presence of the dollar in Eurocurrency markets, in all parts of the world, is due to international banks finding it less expensive to deal in dollars than in any other currency. Such savings in transaction costs are passed along to customers. The dollar's general availability makes it easily obtained and guarantees its inexpensive use.

The Value of the Dollar and World Prices

The pervasive presence of the U.S. dollar gives it considerable influence in competitive world markets. Changes in the value of the dollar are closely correlated with opposite movements in a variety of general and even specific prices. The basic relationship between exchange rates and prices in competitive markets is well understood by those industries most dependent on foreign trade. Considering the dollar's function as world money allows us to examine its effect on prices of goods having world markets, such as agricultural products.

When the dollar rises, individuals in other countries must give up more of their home monies to obtain the same amount of U.S. currency as before. Therefore, all goods priced in dollars, such as petroleum, will appear to rise in price. The seller will be forced to accept a lower dollar price to sell the same amount. In general, whenever U.S. currency rises in value over a long enough period of time, we will see a fall in world dollar prices. When the dollar falls, those same prices rise.

Factors other than exchange rates do, of course, affect the amount and the prices of goods people sell and buy. Weather, cartels, and changing market conditions have had profound effects on the supply and prices of internationally traded goods. Wide swings in world income growth over the past 20 years have also significantly affected purchasers' ability to buy products in world markets.

There have been four major, identifiable long-term (2 years or longer) trends in the value of the dollar over the past two decades. Beginning in the third quarter of 1968, the dollar--as measured by the Federal Reserve's "index of the weighted-average exchange value of the U.S. dollar," (2)--dropped steadily until the third quarter of 1973, losing some 23 percent of its value.

The value of U.S. currency then "waffled" until the third quarter of 1976. At that point, the dollar again fell, almost continually, until the next-to-last quarter of 1980. From that time until the first quarter of 1985, the dollar soared in value to 83 percent above its low.

These four periods are compared in the accompanying table with world export and import unit values (measured in dollars). The indexes show approximate changes in the relative prices of all traded goods. As expected, both series show sharp increases during the two periods in which the U.S. dollar depreciated in value. Further, the two unit value indexes show declines coinciding with the dollar's appreciation.

As we move from general to more specific price indexes and price series in the table, the same trend holds, especially in those periods when the dollar showed sustained movement either up or down. As far as agricultural prices go, the "waffle" period saw mixed results. Of the agricultural price indexes and farm products listed, only maize increased in price for that period. No such vacillation was evident, however, during times of sustained dollar movement up or down. When the dollar fell, prices of farm products rose, and rose strongly. A rising dollar, in turn, took its toll on prices during the appreciation of the early 1980's.

The same picture holds for primary metals, both individually and in the aggregate. Regardless of the commodity, the general rule seems clear: The value of the dollar and world prices have a strong inverse relationship, which is apparently inviolate during sustained stretches of change in the dollar's worth relative to other major currencies.

The Rest of the Story

Three factors are most often cited in explaining the changes in the value of the dollar over the past 20 years. They are interest rates, the money supply, and money demand. All three will be examined in the context of the dollar as the world's money.

Relationships between the foreign exchange value of the U.S. dollar and commodity prices

Commodity	Periods of change in dollar value: Fall 1968-III	Waffle 1973-III	Fall 1976-III	Rise 1980-III	1985-I
	Percent change 1/				
Trade-weighted dollar 2/					
Average	-23	13	-20	83	
Gross	-5	4	-5	14	
Indexes					
Import unit values 3/					
Average	60	48	78	-20	
Gross	10	14	15	-5	
Export unit values 3/					
Average	62	48	78	-20	
Gross	10	14	15	-5	
Food 3/					
Average	133	-8	76	-37	
Gross	18	-1	15	-9	
Agr. raw materials 3/					
Average	146	-7	34	-22	
Gross	20	-1	8	-5	
Metals 3/					
Average	74	3	53	-30	
Gross	12	3	11	-8	
Selected commodity prices					
Soybeans (Rotterdam, c.i.f.) 4/					
Average	196	-17	22	-23	
Gross	27	-1	9	-4	
Wheat (Gulf ports, f.o.b.) 4/					
Average	157	-20	35	-16	
Gross	23	-4	9	-4	
Corn (Gulf ports, f.o.b.) 4/					
Average	149	7	16	-15	
Gross	21	4	6	-2	
Copper 3/					
Average	88	-23	36	-34	
Gross	16	-3	11	-9	
Iron ore 3/					
Average	54	14	22	-16	
Gross	10	6	6	-3	
Tin 3/					
Average	59	64	109	-35	
Gross	10	20	20	-9	

1/ Average of annualized quarter-to-quarter movements within periods indicated. Gross changes are from beginning to end of period indicated. 2/ Federal Reserve Bulletin, various issues. 3/ International Financial Statistics. 4/ FATUS, various issues.

Changes in any of the three conditions will also affect prices.

Interest Rates

The most frequently cited reason for the appreciation of the dollar over the last 5 years is the high interest rates paid on dollar-denominated assets both here and abroad. The focus, of course, has been on the "real" rates of return--interest rates adjusted for some expected rate of price increase or decrease. The calculation of real interest rates is therefore dependent on how one measures inflation (as well as expected inflation, which is unobservable).

The use of the dollar as the primary instrument of world trade implies that some sort of global price index would be appropriate. People holding dollars outside the United States are presumably more concerned with what the dollar buys there, and not in New York or Cleveland. The real interest rate used here will thus be estimated as the 3-month London interbank offered rate (LIBOR) on dollar deposits, less the change in world import unit values.

U.S. currency should rise in value whenever real rates of return are clearly higher on dollar-denominated bonds, certificates, etc., than on comparable

financial instruments whose face value is listed in other monies. Investors and bankers will, on average, prefer 4 percent, after inflation, to 3 percent. When large sums of money are involved, of course, even smaller differentials become crucial.

There have been four general trends in the movement of the dollar against the German mark since 1970. The dollar depreciated from the first quarter of 1971 through the third quarter of 1973. This was followed by a vacillation during the next 14 quarters, and another depreciation into the fourth quarter of 1979. From then into the first quarter of 1985, the dollar has appreciated strongly relative to its German counterpart. The last two periods are particularly instructive. The dollar's decline, then advance, against the mark is plainly associated with real interest rate differentials in favor of the appreciating currency.

There are three distinct trends noted in the movement of the dollar against the British pound from 1970 into the first quarter of 1985, which include no vacillation. The dollar has either risen or fallen. As with the German mark, the last two episodes clearly indicate that the appreciating currency possesses a real interest rate advantage.

Interest rates are not only important to exchange rates, but they may also exert considerable influence of their own over prices. Most production and sales are intermediated by some sort of inventory. These stocks form a buffer which smooths cycles in supply and demand. Interest rates are crucial to the size of these stocks. High interest rates make holding inventories expensive in two ways. First, the cost of borrowing to finance carryover increases. Second, the present value of such holdings declines as real interest rates increase. Both of these factors encourage the reduction of inventories.

The extra supply that finds its way to the buyer (because it is not held in inventory) can do so only at a lower price. The reverse, of course, will be true when real interest rates are very low or even negative. In that case, the possibility of future price increases justifies holding larger stores than would otherwise be the case.

That is not, however, the end of the interest rate story. High interest rates may also induce people to save more and spend less. The reduction in demand will cause prices to fall, as people will be willing to buy the same quantities of goods only at lower prices. But, negative real interest rates will once again reverse this scenario.

Money Supply Effect on Dollar

Exchange rates, it is argued, measure the relative price of two monies. This is the essential argument of the "monetary" approach to the balance of payments (6). If the supply of dollars increases faster than the supply of yen, for example, then U.S. currency should decline in value relative to Japanese currency. As a measure of world money, since we are dealing with a world currency, the most consistent series would be the total size of the Eurocurrency market--foreign currency (primarily U.S. dollar) liabilities of banks in

Changes in foreign exchange value and real interest rate advantage for U.S. dollars

Commodity	Periods of change in dollar value			
	Rise 1971-I.....1973-III	Waffle 1976-IV	Fall 1979-IV	Rise 1985-I
	Percent			
Dollar vs German mark				
Average change	-12	4	-9	11
Gross change	-35	8	-32	75
Real interest rate advantage 1/	-5	-11	-5	10
	1971-III.....1976-IV		1980-IV	.....1985-I
Dollar vs British pound				
Average change	8		-9	19
Gross change	47		-31	114
Real interest rate advantage 1/	-5		-3	12

1/ A positive value indicates a real interest advantage for U.S. currency.

Western Europe and offshore banking centers such as the Bahamas, Cayman Islands, Panama, Hong Kong, Singapore, and Bahrain.

The size of the Eurocurrency market increased dramatically during the 1970's, growing more than 20 percent a year. However, this growth slowed markedly in the 1980's. The rate of increase fell below 20 percent in 1980 and 1981, then to less than 5 percent in 1983 through early 1985. The expected association, as with prices, is clearest in the late 1970's and early 1980's. The dollar declined in value from 1976 into 1980, as the Eurocurrency market surged. Then, the abrupt halt to the rise in Euromoney coincided with the appreciation of the dollar.

Money growth also affects prices, although after a greater lag than its effect on exchange rates. An increase in money finds people with more money than they want to hold or to save. As they spend it, prices rise because demand increases relative to supply. (Output may also increase. We are here concerned only with price effects, however.) The reverse is the case when money (or its rate of growth) is reduced.

The rate of change in money also affects interest rates in ways that enhance the price effects noted above. A decrease in the growth rate of money raises interest rates by contracting the supply of credit. The rise in interest rates, as we have seen, will lead to inventory reduction and price declines. A fall in the rate of growth in money may also reduce prices by leading to lower aggregate demand.

Money Demand Affects Dollar and Prices

Among the most difficult, slippery, and perplexing topics in economics is the concept of money demand. Holding money is central to the concept of money demand. When people suddenly desire to hold more or less money than previously, interesting things happen, especially to prices. People acquire dollars to spend or to save. The quantity of dollars held for the purpose of spending, now or in the near future, is money demand. Money saved is not money held. When people hold more money, they either spend less or save less. If less is spent, then prices will fall as aggregate demand declines.

Two reasons have been advanced, neither of them directly quantifiable, that purport to explain at least part of the surge in the worldwide demand for dollars. These explanations are independent of money supply or interest rate considerations, and fall under the headings of safety and wealth.

The safety postulate says that in a world of increasing uncertainty, a premium is placed on a currency's liquidity, acceptability, and low risk. All of these factors favor the dollar. No currency is more acceptable, few are backed by a government as stable, and dollars are easy to carry and obtain. All of these benefits suddenly converged, however, as interest rates rose on dollar deposits in Europe and elsewhere.

Wealth is defined as those assets that yield income (or a stream of services) over a period of time. As wealth increases, there is less incentive to save; the rainy day is already taken care of by existing stores of value. When wealth increases, then, people are willing to hold more money because they will want to spend more money now rather than later. The demand for money increases. Other things equal, a rise in wealth, measured in dollars, will act to lower prices by raising the amount of dollars that people are willing to hold.

The world market did, apparently, see a windfall when it came to wealth during the early 1980's. The rise in the dollar gave substantial capital gains to people overseas holding dollar-denominated stocks and bonds. An individual (or institution) in Great Britain, for example, may have held £1000 of U.S. Government securities in 1980, worth $2,324. By 1984, $2,324 was worth £1,739--a 74-percent windfall (over and above interest payments) to the British investor in terms of the home currency. Wealth had increased without the necessity of saving, encouraging holding more dollars. As the rate of growth in money fell, then, prices had to fall. This is a variation on the "portfolio-balance" approach to exchange-rate determination (1), applied to the dollar as a world currency.

Summing Up

The value of the dollar is closely related to prices, both in general and in specific markets. In addition, those factors which

cause the dollar to rise or fall in value also directly affect world prices, reinforcing the exchange rate effect. Clearly the "issue" of the dollar is not so simple as it once seemed. Recent experience does suggest, however, that if the conditions which have induced the dollar to fall over the past 14 months are sustained, world prices will increase. A continuing oversupply of primary commodities makes it unlikely that this effect will be felt or prices will increase in the coming year. However, increased demand generated by the falling dollar will lead to higher prices than would otherwise be the case. The pervasive relationship between exchange rates and prices implies that agricultural markets will also be affected. *[David Stallings (202) 786-1624]*

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TRENDS FOR GRAIN CONSUMPTION, PRODUCTION, AND TRADE IN THE DEVELOPING COUNTRIES

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Abstract: The developing countries' rapidly accelerating growth in demand for food is exceeding their capacity to expand domestic production. Their increasing dependence on foreign supplies may create growing markets for U.S. exports of food grains and coarse grains.

Keywords: Developing countries, grain, production, consumption, trade, dependency.

In the developing countries, food production is generally increasing more rapidly than population but less rapidly than consumption (notable exceptions include some countries in Sub-Saharan Africa, where population is increasing faster than production and consumption). Thus, imports by the developing countries are climbing. These larger imports reflect both rapidly expanding population and economic development. Two important economic forces affecting consumption are rising per capita income and increasing urbanization.

Not only does food consumption increase with rising incomes, but consumption patterns change. With higher incomes, consumers substitute livestock products and other more costly foods for staple foods of coarse grains and roots and tubers. More domestically produced livestock products require, in turn, additional supplies of feedstuffs.

This article reviews the ongoing changes in food grains (wheat and rice) and coarse grains (corn, sorghum, millet, and barley) in the developing countries, and contrasts their situation with the industrial market countries. Developing countries and industrial market countries are defined as in the World Bank's *World Development Report 1985*. China is not included in this discussion.

Consumption Nearly Doubles

Total consumption of both food grains and coarse grains has almost doubled in the developing countries during the past 20 years, exceeding population growth and raising per capita consumption. The patterns underlying the higher consumption of these two commodity groups are quite different, though.

In the developing countries, almost all of the food grains are consumed directly. For the coarse grains, a large, but declining, proportion is consumed directly as food. In contrast, little of the coarse grain consumed in the industrial market countries is utilized directly as food. Per capita consumption of coarse grain as food has declined in the developing countries. Use of coarse grains as livestock feed has increased rapidly, however, because of the strong derived demand for feedstuffs created by the larger output of domestic livestock products.

Consumption patterns in the developing and industrial market countries

Item	Food grains		Coarse grains	
	Developing	Industrial	Developing	Industrial
	Percent change 1961-63 to 1980-82			
Consumption				
Food 1/	92	6	44	27
Feed	168	108	199	60
Food and feed	94	19	89	59
Per capita				
Food	22	-10	-9	8
Feed	70	76	90	36
Food and feed	23	1	20	35

1/ Food use includes direct consumption of primary and milled products.
Source: FAO food balance tape.

Production Outpaces Population

In the developing countries, the increase in per capita production in the last two decades has been most significant for the food grains. Nevertheless, it is imports that have allowed consumption of food grains and especially coarse grains to increase more rapidly than production in the developing countries. In contrast, production has grown more rapidly than consumption in the industrial market countries, including the United States.

Production changes in developing and industrial market countries

Item	Food grains		Coarse grains	
	Developing	Industrial	Developing	Industrial
	Percent change 1961-63 to 1980-82			
Production	80	70	65	105
Per capita	14	44	4	74
Area	28	29	15	35
Yield	40	32	44	51
Proportion of total area	5	6	-7	11
	Ratio of yield to area 1/			
	1.4	1.1	3.0	1.5

1/ The yield contribution is the change in yield from 1961-63 to 1980-82 multiplied by 1961-63 harvested area. The area contribution is the change in area from 1961-63 to 1980-82 multiplied by 1961-63 yield.
Source: FAO production tape.

The larger production of food grains and coarse grains in the developing countries, as well as in the industrial market countries, has resulted from both improved yields and expanded acreage. These two commodity groups together occupy a relatively large proportion of total harvested areas- 65 and 68 percent in the developing and industrial market countries, respectively, in 1980-82. The coarse grain harvested area in the developing countries increased less rapidly than the area devoted to food grains and the total harvested area. Thus, the proportion of total harvested area in coarse grains declined.

The percentage improvement in crop yields in the developing countries was about the same as in the industrial market countries. In both groups, the contribution of improved crop yields to increased production was greater than the contribution of expanded harvested area from 1960 to 1982, especially for coarse grains. In the developing countries, the yield contribution of coarse grains was three times larger than the effect of expanded harvested area. Crop yields have been rising with the spread of higher yielding varieties; greater use of fertilizer, herbicides, and insecticides; expanded use of irrigation in some areas; and other technological innovations.

Despite these significant increases in production, though, the developing countries have steadily increased imports from the industrial market countries because of the

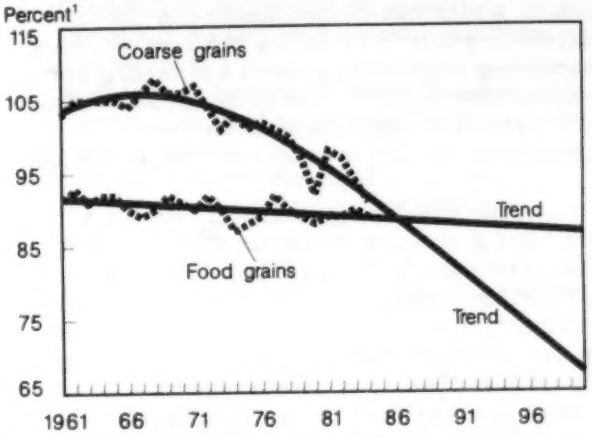
combination of rapidly growing populations and economic development.

Trade To Increase

The developing countries' increasing dependence on foreign grain supplies can be seen in the trends for domestic production as a percentage of the sum of domestic production and net imports. Self-sufficiency for coarse grains is trending down more rapidly than for food grains. The developing countries were net exporters of coarse grains during the 1960's and early 1970's. Since the mid-1970's, however, their coarse grain imports have increasingly overshadowed exports.

The developing countries' food grain imports have also increased, but their dependence on food grain imports has grown more slowly than that for coarse grains over the past two decades. Projecting these self-sufficiency trends into the future dramatizes the differences between the two commodity groups. Continuation of these trends represents potential growing markets for U.S. exports of food grains and coarse grains. *[Gary Vocke (202) 786-1706]*

Self-sufficiency Declines as Grain Use Outpaces Production



1 Production as percent of production plus net imports.

THE U.S. TRADE BALANCE WITH AFRICA AND THE MIDDLE EAST

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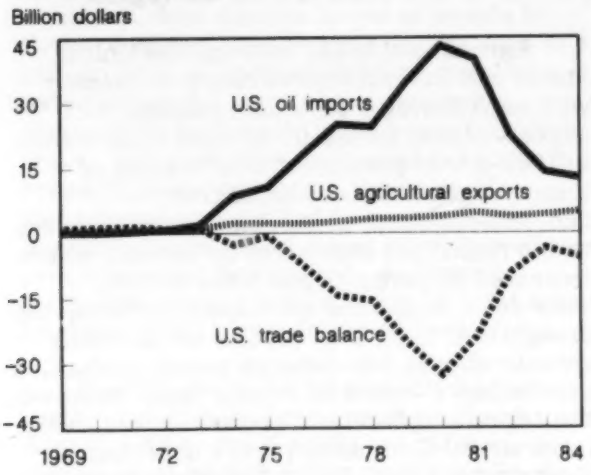
Abstract: The U.S. trade balance with this region has changed substantially during the last 15 years--ranging from a surplus of $1 billion to a deficit of more than $30 billion. Currently, the United States has around a $3-billion trade deficit with this region. The region is almost a $20-billion market for the United States, with agriculture accounting for over 25 percent of the total. U.S. imports from the region total about $23 billion, with a 6-percent share for agriculture. We examine the trade balance between the United States and North Africa, the Middle East, Sub-Saharan Africa, and South Africa and discuss the role played by specific commodities, both agricultural and nonagricultural, in the trade balance and the changes in commodity composition.

Keywords: Trade balance, surplus, deficit, Africa, Middle East, oil price, agriculture.

U.S. Trade Deficit Narrowed

The United States has had annual trade deficits with the Africa and the Middle East region since 1974, when the price of oil tripled. Oil is the major U.S. import from the region, and accounted for over 80 percent of the total import value from the late 1970's to early 1980's. From 1969 to 1974, the U.S. trade surplus stood at around $1 billion. The trade deficit that began in 1974 peaked at $30 billion in 1980, when oil prices soared to more than $30 per barrel. In 1985, the deficit was about $3 billion, and the region supplied only one-third of U.S. oil imports, compared with about two-thirds in 1981.

U.S. Trade Deficit Declining with Africa and Middle East



The value of U.S. exports to the region increased more than fivefold since 1973 to a peak of $23.4 billion in 1981. Rapidly growing populations, large export earnings, policies subsidizing consumption, and the availability of credit boosted import demand in the region during the last decade. Also, the 1973 change in U.S. monetary policy that allowed the dollar to float in the world exchange market made U.S. commodities more competitive with those from other exporters.

In recent years the situation has changed. Declining oil prices, coupled with expensive credit at high interest rates, have reduced the value of the the region's total imports significantly. Also, U.S. policy to reduce inflation, through a restrictive monetary policy, resulted in a substantial increase in the value of the dollar. Diversification of trading partners by both the United States and the region, for political and economic reasons, reduced the size of trade. Since 1980, total U.S. imports from the region declined 70 percent, while U.S. exports declined 22 percent to less than $18 billion. Lower oil imports accounted for almost all of the U.S. import decline, while agricultural and mineral imports grew moderately. Despite the decline in overall U.S. exports, agricultural exports increased to a record $5 billion in 1984, and their share of total exports approached 25 percent.

Trade between the United States and this region is not expected to change substantially. The U.S. shift from the Middle East as a major oil supplier is not likely to be reversed in the near future. For other commodities, agricultural (coffee, tea, etc.) and minerals, U.S. import demand is growing very slowly. U.S. exports to the region will wane as declining oil revenues and stagnating prices of other commodities restrain the region's overall purchasing power. Credit is expected to play the most important role in increasing both the relative and absolute market share of U.S. agricultural commodities. The Food Security Act of 1985 and its promotion of exports through increasing short term credit, establishing a barter program, and changing cargo preference laws should increase the value of U.S. agricultural exports to the region.

U.S. Surplus With Middle East Growing

The U.S. trade deficit with the Middle East began in 1977 and continued through 1981. The deficit peaked in 1980, when U.S. oil imports--almost $17 billion--comprised over 90 percent of total imports. Since 1982, the United States has enjoyed a trade surplus with the Middle East, as petroleum imports declined 45 percent. The drop was part of the U.S. policy to diversify suppliers for security purposes.

As oil prices hover at the $10- to $15-per-barrel mark, the U.S. surplus should increase, as the U.S. oil bill will be cut in half. However, lower oil prices will not have a completely positive impact because demand for U.S. exports may decline as the region's oil income declines. Reduced oil revenues will force the oil exporters to reduce allocations for food imports and become even more price and credit sensitive. In addition, competition for the shrinking Middle East market will intensify.

Over the last 15 years, agricultural products have averaged 20 percent of U.S. exports to the Middle East. Cereals comprised 50 percent of agricultural exports and have grown 15 percent annually since 1969. However, dietary improvements resulting from rising incomes have changed the composition of the region's agricultural imports. Meat and meat products now account for 30 percent and cereals for 27 percent. In 1969-71, meat and meat products accounted for only 14 percent,

while cereals were almost 30 percent. This has not been a favorable development for the United States, which is not a major red meat exporter.

The U.S. market share in the Middle East has declined markedly, and other supplier credit has often hurt the U.S. share. The United States currently supplies only 20 percent of Middle East cereal imports, compared with 40 percent less than 10 years ago. Along with the United States, leading suppliers include the EC (primarily France), Australia, and Argentina.

U.S. Deficit With North Africa Falls

The U.S. trade deficit with North Africa has fallen quite rapidly since the early 1980's and is currently at $500 million. As in the Middle East, the reduced deficit is a result of declining U.S. oil imports, as U.S. exports to North Africa have remained constant in value. Since 1980, oil imports declined more than 60 percent per year; a contributing factor was the suspension of imports from Libya in 1982. Currently, the region supplies only 3 percent of U.S. oil imports.

On the U.S. export side, North Africa is a large growth market. Over 40 percent of U.S. exports to the region are agricultural, primarily cereals. U.S. cereal exports to North Africa, mostly wheat, have increased over 10 percent annually since 1980. This is mainly a volume increase as wheat prices have remained steady, declining only very recently. Remaining U.S. exports include airplanes, construction equipment, and high technology products. There have been no notable gains in U.S. market share since the mid-1970's as competition has intensified. The increased number of suppliers has resulted from importing countries seeking less expensive suppliers. In addition, North African countries entered the export market to alleviate their own financial difficulties.

Deficit Largest With Sub-Saharan Africa

Of the four regions studied, Sub-Saharan Africa triggered the largest U.S. trade deficit with large oil exports to the United States. The current deficit is about $6 billion, less than half that of 1980. Sub-Saharan Africa supplies the United States with more oil than either the Middle East or North Africa, and since late 1973, oil has accounted for about 75 percent of U.S. imports from the region.

Agricultural trade between the United States and Sub-Saharan Africa is in balance with each having a $1-billion market. U.S. imports consist primarily of coffee and cocoa. In 1982-84, 20 percent of U.S. imports of these commodities emanated from Sub-Saharan Africa. U.S. agricultural exports to the region are dominated by cereals, which increased 25 percent from 1984 to 1985 because of large food aid shipments during the drought. In 1986, U.S. exports are dropping considerably as Sub-Saharan cereal production approaches a record 50 million tons. However, the region's agricultural production has shown large annual fluctuations and a declining per capita production trend. Therefore, the region's import dependence will continue. Other factors contributing to this dependence are government subsidies, overvalued exchange rates--which make imports cheaper--and an inadequate infrastructure. High transportation costs and poor marketing systems in some countries make it cheaper to import than supply the urban areas with domestically produced goods.

Trade With South Africa Balanced

U.S. trade with South Africa is currently in balance. From 1969 through 1976 there was a consistent surplus, but trade has varied from surplus to deficit since then. Most U.S. imports from this country are selected minerals and diamonds, which account for 40 percent of the total. U.S. exports have held steady recently. Agricultural commodities usually do not account for much of the exports as South Africa is virtually self-sufficient. However, in 1983 and 1984, South Africa was hit by major droughts that substantially reduced corn production, and neccessitated substantial imports. In 1985, agricultural exports returned to normal levels of about $100 million.

Trade Balance Outlook Mixed

The outlook for the U.S. trade deficit with Africa and the Middle East is mixed. Certainly, the value of U.S. oil imports will decline as prices drop below $15 per barrel. However, the fall in petroleum prices will translate into a fall in earnings for most of the region. The question therefore arises as to the

impact of lower revenues on imports of the OPEC nations. Agricultural imports should remain at their current levels as people in these countries have become accustomed to a certain level of food availability and any reduction would certainly be opposed, particularly in the politically powerful urban areas. Any reduction in imports would be in nonagricultural products. However, if agricultural imports had to be cut, feed products rather than food or vegetable oils probably would be reduced. As financial conditions worsen, consumption of meat would be replaced by higher levels of food grains.

For the North Africa and Middle East region, the high- income exporters (Saudi Arabia, Libya, and Kuwait) are unlikely to change their import habits dramatically, as they have tremendous oil reserves, large financial reserves, and little foreign debt. The countries likely to be affected (Egypt, Jordan, and Yemen AR) are those that were exporting labor to the Persian Gulf and Libya. Remittances from their laborers were major sources of foreign exchange. However, this income source is declining as the wealthier OPEC nations curtail construction and other infrastructural development and hence, reduce their demand for foreign workers.

In Sub-Saharan Africa, Nigeria is the largest importer of U.S. agricultural products. Nigeria is also the largest oil exporter, with oil accounting for over 90 percent of its foreign exchange. If oil prices remain at current levels, export earnings will be cut in half. Other affected countries include Cameroon, Angola, Congo, and Gabon. However, a 50-percent reduction in oil costs in the remaining Sub-Saharan countries could enable them to use scarce foreign exchange for other imports.

The Food Security Act of 1985 and its promotion of exports should help reduce the trade deficit. Provisions in the bill include making commodities more price competitive and encouraging the reduction of trade barriers. Also, existing credit programs were broadened and new programs were authorized. For example, the Agricultural Export Credit Revolving Fund, which allocates CCC commodities to be used to counter unfair trade practices, was reauthorized. A barter program was introduced which would trade CCC commodities for strategic materials. The cargo preference law was changed to exempt commercial exports from the preference and to increase the amount of food aid shipments carried by U.S. vessels. Also, U.S. exports should become more competitive as the value of the dollar declines, although the full impact of the decline may not be felt for over a year. The combined effect of these factors should work to reduce the trade deficit with Africa and the Middle East. *[Stacey Rosen and Shahla Shapouri (202) 786- 1680]*

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World Agriculture

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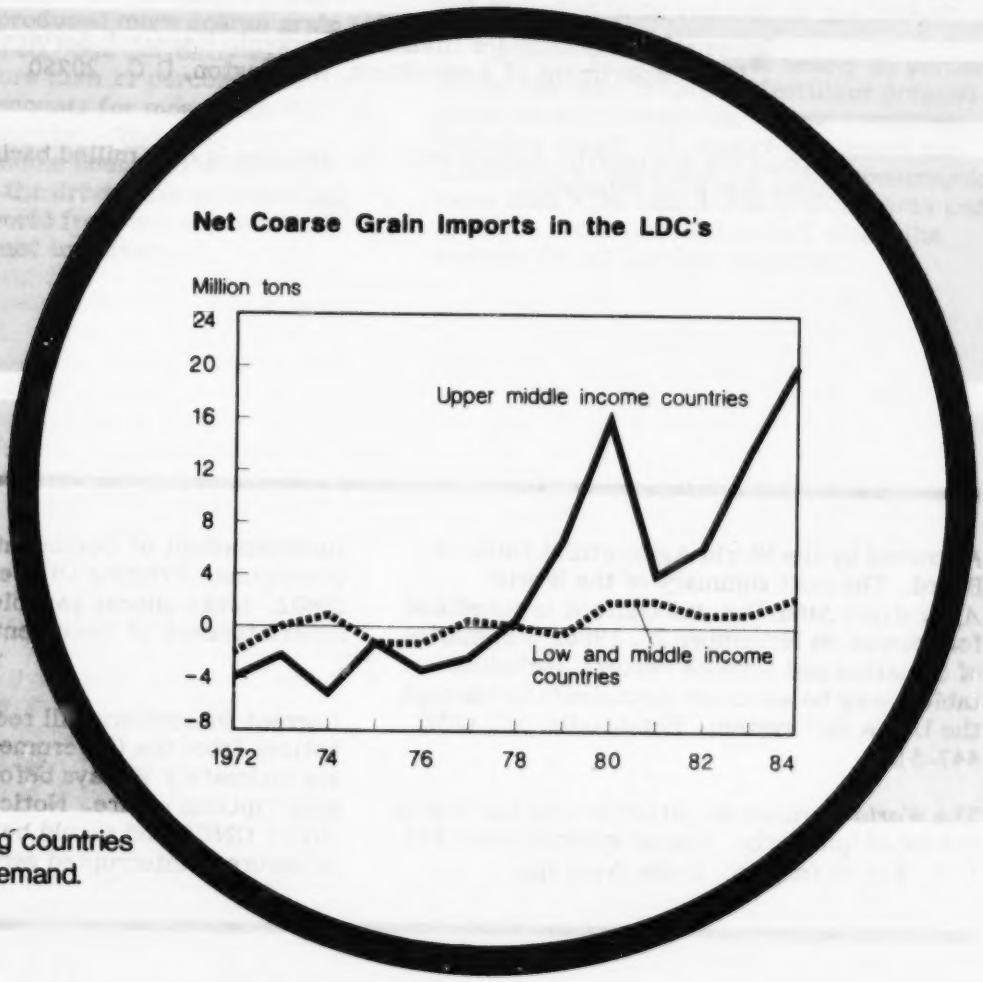

Higher income developing countries boost world feed grain demand.

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Note: Tons are metric, dollars are U.S., and rice is on a milled basis unless specified otherwise.

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SUMMARY

World meat production is expected to grow around 1 percent in 1986, as a marginal decline in beef, veal, lamb, and mutton will be more than offset by increased pork and poultry meat. Demand for meat and meat products is increasing most rapidly in the middle-income countries, and those countries are prime prospects for U.S. coarse grain exports. Growth in per capita meat demand reflects income sufficient to permit discretionary spending within the food budget. Countries where meat demand is growing faster than coarse grain production are likely to turn to world markets for imports, much of which could come from the United States.

Although the developing countries contain half the world's coarse grain area, they produce only about one-fourth of global output because of low yields. In the early 1970's, these countries produced more coarse grain than they consumed. Use currently exceeds production by more than 11 percent, and livestock feed accounts for more than 40 percent of consumption. The upper-middle-income countries within this group have been the driving force in shifting the developing world from net exporters of coarse grains to net importers.

Despite the potential for increased future exports, fiscal 1986 U.S. coarse grain exports are expected to have fallen more than $3 billion. Nearly half the decline was from a large drop in demand by the USSR. Also, many traditional U.S. coarse grain competitors had larger supplies to export, and the dollar was still strong against their currencies. U.S. exports of livestock, poultry, and dairy products are expected to have risen in fiscal 1986, and probably exceeded coarse grain exports in value for the first time since 1961.

Sub-Saharan Africa's 1985/86 cereal production exceeded 60 million tons, up from the drought-reduced 45 million of the previous year. While this year's feed and food crops are threatened by locusts and grasshoppers, as well as drought, civil wars, and internal distribution problems, 1986/87 food supplies are not expected to be reduced to the 1984/85 low.

Recent data show that nearly 85 percent of the increase in foreign fertilizer demand occurred in 17 countries. These countries, including major U.S. export customers and competitors, increased fertilizer consumption more than 9 percent annually in 1983/84 and 1984/85, about one-and-a-half times the average for all foreign countries.

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WORLD ECONOMIC CONDITIONS

Global Assessment

Growth Will Be Moderate But Balanced

Lower oil prices spreading through the world economy initially appear to be moderating world economic growth in 1986, as reduced petroleum revenues constrain import demand from oil exporters. However, this immediate impact is likely to be reversed next year as lower oil prices stimulate growth among oil importers.

World economic growth in 1986, projected near 2.6 percent in real terms, compares with 2.9 in 1985, and 4.3 percent in 1984. World growth is likely to improve next year, as broad-based adjustments to lower oil prices and related effects take hold. However, growth is not expected to reach the rapid pace of 1983-84. On the other hand, economic growth in the coming 3-5 years is likely to prove more sustainable than in 1983-84 because a more balanced expansion is expected among Europe, Japan, the United States, Asia, and Latin America.

Major contributions to this expansion are likely to come from at least three sources:

- Higher real incomes brought about by lower oil prices should increase consumption generally next year, with additional import stimulus from stronger currencies in Europe and Japan. Beyond 1987, if lower oil prices are sustained, improved growth is likely in both industrial and developing countries--notably the industrializing Asian countries.

- Second, recent declines in interest rates should raise domestic investment and consumption in industrial economies--particularly Europe--as well as lighten developing countries' debt service.

- Third, a more competitive dollar should provide additional stimulus to U.S. exports, raising U.S. income and growth and so augmenting world economic activity.

In the past year, 50-percent declines in world crude oil prices have increased real income for many countries, as the previous stimulus for the world economy--U.S. import demand--fades. Petroleum prices fell from a 1985 average of $28 a barrel to $14 by August 1986 for North Sea oil, and below $12 for Mideast crude.

Lower Interest Rates Boost Economy

Lower oil prices have allowed central banks in the industrial countries to loosen monetary policies slightly, prompting significant declines in interest rates worldwide. The U.S. Federal Reserve discount rate fell from 9 percent in mid-1984 to 5.5 in August 1986. This compares with a peak of 14 percent in 1981. Official discount rates in Japan and Germany are both at historic lows of 3.5 percent, while interest on commercial Eurodollar deposits stands around 6 percent, half of 1984 highs.

Fiscal stimulus to promote future growth has been precluded by attempts to reduce government budget deficits in Japan, Germany, and the United States. These governments are lowering interest rates in an attempt to focus growth on private demand rather than government spending.

Private consumer and investor spending plans must change before demand growth increases. These decisions take longer to provide fiscal stimulus than government fiscal stimulus.

Lower Dollar Stimulus

The decline of the dollar should also raise U.S. economic activity in coming years--in turn supporting world growth--and provide secondary trade effects by fueling U.S. imports. The dollar has fallen more than 30 percent against major world currencies between its peak in February 1985 and August 1986. The lower dollar makes dollar-priced goods less expensive to countries with appreciating currencies, particularly Japan and Europe.

The steady appreciation of the dollar between late 1980 and early 1985 gave foreign exporters over 4 uninterrupted years to expand markets with lower-priced goods in the United

States. However, the recent 18-month dollar depreciation has put steady pressure on foreign exporters to cut profit margins or costs to maintain their U.S. market share, and compete with U.S. exports on world markets.

Developing Country Growth Differs Widely

Developing country contribution to world growth will be minimal in 1986, leaving most world growth to come from the industrial economies, particularly Europe. Developing country income may improve in 1987 as key debt burdens are rescheduled and export markets pick up.

Growth rates among developing countries, however, are expected to differ widely between Asia, Latin America, the Middle East, and Africa. Income growth in Asia should continue rising, with large trade surpluses in Taiwan, Korea, Hong Kong, and Singapore.

Generally, low growth in Latin America is heavily influenced by the negative growth rates in Mexico where the decline has caused immediate problems. Heavy reliance on oil export revenues has severely constrained Mexico's ability to repay its external debt on schedule. While most OPEC oil exporters do not have the large external debt that Mexico has, some are already drawing upon assets invested abroad to cushion shortfalls in export revenue, slowing world trade as a result.

Lower oil prices will of course constrain growth among other oil exporters. Continued low prices for other commodities will also slow growth in African countries heavily dependent on raw material exports. Economic growth in Africa and the Mideast is thus expected to be negative this year and minimal next.

However, poor regional growth can mask individual country differences. For example, a large Brazilian trade surplus is hidden by slow growth in other Latin American countries. Also obscured are currency reforms in Argentina and Brazil designed to foster lower inflation partly by capitalizing on the drop in oil prices. Argentine inflation is expected to decline below 100 percent this year (compared with 672 in 1985) and Brazilian inflation in 1987 may reach 50 percent (compared with around 220 in 1984 and 1985).

Dollar Exchange Rates

Central bank policies of the major industrial countries have kept the dollar fairly stable since spring, both through direct exchange market intervention and through interest rate policies. However, unilateral reductions in the U.S. Federal Reserve discount rate to 6 percent on July 10 and to 5.5 on August 21 have eased U.S. interest rates below foreign ones, undercutting the value of the dollar.

Japanese and German aversion to lowering official discount rates under historic lows of 3.5 percent would indicate further dollar declines as U.S. interest rates subside. However, sharply curtailed Japanese growth due to the 40-percent appreciation in the yen against the dollar between February 1985 and August 1986 could persuade Japanese officials, despite repeated denials, to lower the discount rate once again--following three reductions already this year.

Strong domestic growth in the second quarter of 1986 compared with the first gives Germany less reason to lower interest rates again. Nonetheless, the increasing value of the mark may lead German officials to reduce interest rates to maintain demand for German exports.

In June, the dollar strengthened against competing agricultural currencies such as the Canadian and Australian dollars. The Australian dollar in particular fell severely, from about A$1.38 per U.S. dollar in May to

Foreign currency units per U.S. dollar

Year	Mark	Yen	Pound	Guilder	Can$
1980	1.818	226.4	.4299	1.987	1.169
1981	2.257	220.2	.4983	2.492	1.198
1982	2.427	248.8	.5722	2.669	1.233
1983	2.554	237.4	.6597	2.853	1.232
1984	2.847	237.6	.7517	3.209	1.295
1985	2.942	238.3	.7790	3.319	1.365
1986					
Jan.	2.437	199.8	.7014	2.746	1.407
Feb.	2.330	184.8	.6999	2.632	1.404
Mar.	2.276	178.6	.6809	2.565	1.400
Apr.	2.268	174.7	.6671	2.560	1.387
May	2.226	166.9	.6564	2.505	1.375
June	2.232	167.4	.6625	2.513	1.389
July	2.148	158.1	.6631	2.422	1.380
Aug.	2.060	154.1	.6726	2.324	1.388
Sep. 1/	2.042	154.8	.6776	2.304	1.386

1/ Preliminary.

more than A$1.63 by August, as traders reacted skeptically to Australia's recent attempts to correct its large U.S. dollar debt and trade deficit. *[Ted Wilson (202) 786-1688]*

World Shipping

Charter Market Situation and Outlook

The charter market continues to suffer from an overall downturn in worldwide trading. Decreased demand for shipping services has caused significant excess shipping capacity and low freight rates. During the summer, freight rates are traditionally the lowest of the year. However, freight rates this August were exceptionally low, averaging 23 percent below a year ago (except for the U.S. Gulf to Venezuela route).

The outlook (based on levels implied by freight rate futures trading activity) is for rates to increase. Rates are projected to strengthen somewhat by fall and to continue to increase during 1987. While rates are expected to increase by next summer, they will be significantly lower than in 1985 and earlier.

Shipbuilding has been reduced compared with previous years and the demolition of vessels about equals the 1985 record. Assuming these trends continue, the excess capacity in the world fleet should significantly decrease by 1987, boosting overall freight rates.

Maritime Bills Pending in Congress

There are two maritime bills pending in Congress that probably would increase the cost of transportation services used by agricultural exporters. It is unlikely, however, that any new maritime-related legislation will be enacted before this session of Congress ends. The bills involve:

- *Bilateral cargo sharing agreement.* The bill currently before the House Merchant Marine Subcommittee would, if enacted, require the President to negotiate bilateral cargo-sharing agreements with nations whose trade with the United States exceeds 1 percent of total waterborne U.S. commerce and with less than one-third of that trade moved on

Baltic freight index, grain components, and rate projections

Month	BFI	U.S. Gulf to			U.S. N. Pacific to
		Belgium	Japan	Venezuela	S. Japan
	Jan. 1985 = 1000		Dollars per metric ton		
1985					
Aug.	718.2	5.78	10.00	7.08	7.08
Sep.	739.5	6.28	10.75	7.88	7.02
Oct.	866.5	8.33	14.46	9.95	9.00
Nov.	906.5	8.07	13.50	10.39	9.38
Dec.	916.5	8.53	13.08	12.79	8.65
1986					
Jan.	897.5	7.75	13.10	13.04	8.63
Feb.	827.5	6.92	12.00	8.32	8.70
Mar.	734.0	5.99	10.09	7.14	8.25
Apr.	732.0	5.75	10.50	6.72	8.45
May	658.0	5.86	8.50	6.67	7.16
June	663.0	5.84	9.00	7.93	6.81
July	584.5	4.44	7.75	8.03	6.23
Aug.	556.0	4.38	7.78	8.71	5.25
Spot BFI rates on Aug. 15, 1986		4.59	8.37	8.73	5.54
Projections 1/					
Rate implied by futures price					
Oct. 1986		5.68	10.35	10.79	6.85
Jan. 1987		5.92	10.79	11.25	7.14
Apr. 1987		6.22	11.33	11.81	7.50
July 1987		5.78	10.53	10.97	6.97

1/ Formula for projected rates was developed by Barry D. Parker, Man International Futures, Inc.
Source: Baltic Freight Futures Exchange

U.S.–flag vessels. At least 26 countries would be affected by this initiative, which is expected to increase the cost of shipping services.

- *Port and waterway development.* Legislation to fund port and inland waterway development has passed both the Senate and House and is presently at the conference committee stage. The Senate version includes provisions for user charges to cover part of port development costs and for local entities to pay for 50 percent of channel deepening beyond 50 feet. In contrast, the House version proposes a larger share of funds coming from the Federal Government and authorizes more developmental projects. Both the House and Senate would impose ad valorem charges on cargo moving through the port. *[Kay L. McLennan (202) 786-1620]*

Fertilizer

Prices Decline; Foreign Use Rises

Growth in world demand for chemical fertilizers during the fertilizer year ending July 1985 slowed significantly, in essence because flat consumption trends in the United States were not offset sufficiently by growth in the rest of the world. Consumption growth outside the United States slowed slightly, from 7.7 percent to 5.1, but for the second consecutive year remained above long-term trends. Consumption during 1984 through 1985, and early 1986, was sustained by lower international prices, which declined 20 to 23 percent from June 1984 to June 1986, or slightly more than the 18-percent drop in cereals and cotton lint prices.

Moderate declines in global consumption are forecast for 1986, and modest increases in yearly use are likely during the rest of the eighties, according to the Fertilizer Working Group sponsored jointly by the Food and Agriculture Organization of the United Nations, the U.N. Industrial Development Organization, and the World Bank. Fertilizer price changes should continue to reflect movements in international cereal crop prices and, to a lesser extent, energy prices.

Foreign Regional Use Trends Diverge

Global consumption trends since June 1983, which were broadly consistent with longer-term trends, masked marked differences in regional growth patterns, and these contrasts became even more distinct during the last 2 years. Four countries and one country group, accounting for 44 percent of fertilizer use outside the United States during 1971/72, increased consumption nearly 8 percent annually through 1982/83 and more than 9 percent annually during the next 2 years. These countries, in order of relative importance of additional chemical fertilizer nutrients used during 1982/83, compared with 1971/72, were: China, a group of 13 developing countries that are major foreign exporters and importers of cereals and oilseeds (Algeria, Argentina, Brazil, Burma, Egypt, India, South Korea, Mexico, Morocco, Pakistan, Sudan, Tunisia, and Turkey), the USSR, Australia, and Canada. Other foreign countries, on the average, attained respective increases in fertilizer consumption of only 2.1 and 2.5 percent yearly.

The countries with the higher growth in fertilizer use accounted for nearly 85 percent of the increase in fertilizer demand in the rest of the world during 1983/84 and 1984/85. Rapid growth in demand in these countries since the early seventies, and the acceleration in demand since June 1983, were in marked contrast with corresponding developments in the United States. U.S. fertilizer consumption increased 2.2 percent yearly during 1971/72 through 1981/82, or less than one-half the global rate, and slowed to 0.3 percent yearly through 1984/85.

Relative growth rates in U.S. and foreign fertilizer consumption since the early seventies generally were consistent with contemporary foreign developments in crop price/fertilizer cost ratios, where such comparisons were possible. *[Richard C. Taylor (202) 786-1705]*

U.S. AGRICULTURAL TRADE

The U.S. agricultural trade position has deteriorated once more in fiscal 1986. Forecast at $26.5 billion, agricultural exports are expected to reach their lowest in nearly a

decade. Imports are likely to achieve a record value for the third consecutive year. In May 1986, the United States recorded an agricultural trade deficit for the first time since 1971.

Export volume in fiscal 1986 is expected to fall to 108 million tons, 15 percent below fiscal 1985 and nearly 60 million below peak shipments in fiscal 1980. In large part, the decline is due to importers delaying purchases in anticipation of lower 1986/87 prices for major U.S. export commodities. Feed grain exports are expected to fall more than $3 billion, in part attributable to a large drop in demand by the largest 1985 feed grain customer, the Soviet Union. In addition, most traditional U.S. feed grain competitors had increased supplies to export in 1985/86 and the dollar remained at peak strength against competitors' currencies.

In contrast, importers' delays have not affected U.S. animal and animal product exports in fiscal 1986, and export prices for several such commodities have risen, as have volumes. As a result, animal and product exports are expected to rise and exceed coarse grain exports in value for the first time since 1961. *[Stephen MacDonald (202) 786-1621]*

U.S. agricultural export values 1/

Commodity	1983	1984	1985	1986 F
	Billion dollars			
Grains and feeds	15.2	17.4	13.3	9.5
Wheat and prod.	6.2	6.8	4.5	3.4
Rice	.9	.9	.7	.6
Feed grains and products	6.6	8.2	6.9	3.8
Oilseeds and prod.	8.9	8.8	6.2	6.5
Soybean cake and meal	1.4	1.4	.8	1.1
Soybeans	5.9	5.7	3.9	4.2
Soybean oil	.5	.6	.6	.3
Livestock prod.	3.0	3.5	3.3	3.5
Poultry prod.	.5	.4	.4	.4
Dairy prod.	.4	.4	.4	.4
Horticultural prod.	2.7	2.6	2.6	2.7
Cotton, incl. linters	1.7	2.4	1.9	.7
Tobacco	1.5	1.4	1.6	1.5
Other	.9	1.1	1.5	1.3
Total	34.8	38.0	31.2	26.5

1/ Fiscal year. F = forecast.

U.S. agricultural import values 1/

Commodity	1983	1984	1985	1986 F
	Billion dollars			
Competitive				
Dairy & poultry prod.	.8	.9	.9	.9
Meat & meat prod.	2.1	1.9	2.2	2.2
Other animal prod.	1.0	1.1	1.1	1.1
Fruits, nuts & vegetables	2.3	3.0	3.5	3.5
Oilseeds & prod.	.5	.8	.8	.7
Sugar & related prod.	1.2	1.5	1.3	1.0
Wines & malt beverages	1.3	1.5	1.6	1.7
Other	1.6	1.5	1.5	1.8
Noncompetitive				
Bananas & plantains	.6	.7	.8	.8
Coffee, green & processed	2.8	3.3	3.2	4.2
Cocoa beans & prod.	.8	1.1	1.3	1.2
Rubber & allied gums	.6	.9	.7	.6
Other	.7	.7	.8	.8
Total	16.3	18.9	19.7	20.5

1/ Fiscal year. F = forecast.

WORLD COMMODITY DEVELOPMENTS

Grains

Global 1986/87 grain consumption, at 1,618 million tons, is expected to be up 30 million (2 percent) from 1985/86 but remain about 30 million below production. Feed use is forecast to show little change and will account for 37 percent of total grain. The percentage fed jumps to 46 percent if rice is excluded, with 19 percent for wheat and 64 for coarse grains.

During the last 25 years, world grain has almost doubled, growing at a compound annual rate of 2.7 percent. Feed use has grown 3.1 percent and in 1985/86 was more than double the 283 million tons of the early 1960's. Growth in total grain consumption for the centrally planned and developing countries, at 3.2 percent annually, was more than double the rate of gain in the developed countries. Feed use, however, showed an even sharper difference in growth--1.7 percent for the developed, 4.5 for the centrally planned, and 6.5 for the developing countries.

Slightly under half the total feed use is in the major grain importing countries, paced by the Soviet Union, Eastern Europe, and the EC-12. Feed use among the major foreign grain exporters is much lower.

The major grain importers in total will likely feed about 290 million tons of grain in

Wheat: World production, consumption, and net exports

Country	1984/85			1985/86			1986/87 P		
	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.
	Million metric tons								
Major exporters									
United States	70.6	31.4	37.9	66.0	28.6	24.7	57.7	29.3	31.3
Canada	21.2	5.2	19.4	24.3	6.2	16.7	31.0	5.5	19.5
Australia	18.7	3.7	15.3	16.0	3.2	15.9	15.0	3.1	14.5
EC-12	82.8	59.5	12.9	71.7	59.9	12.4	70.2	59.1	12.4
Argentina	13.2	4.6	8.0	8.5	4.4	6.1	9.6	4.5	4.6
Turkey	13.3	13.6	-.5	12.7	13.8	-.9	14.0	14.0	-.1
Major importers									
USSR	73.0	96.1	-27.1	83.0	97.7	-14.7	76.0	97.0	-18.0
China	87.8	95.2	-7.4	85.8	92.4	-6.6	87.5	94.5	-7.0
Eastern Europe	42.0	40.0	+1.5	37.8	38.8	-.9	39.9	40.8	-1.3
Other W. Europe	4.5	3.4	+.8	4.1	3.4	+.6	4.2	3.5	+.7
Brazil	1.9	6.3	-5.4	4.3	6.8	-2.5	4.3	6.9	-2.8
Mexico	4.2	4.4	-.5	4.4	4.7	-.1	4.5	4.9	-.2
Other Latin Am.	2.0	8.6	-6.8	2.2	8.5	-6.5	2.3	9.1	-6.7
Japan	.7	6.3	-5.3	.9	6.3	-5.2	.9	6.3	-5.3
India	45.5	43.1	0	44.2	43.9	+.5	47.0	46.1	+.4
South Korea	--	3.0	-3.1	--	3.1	-3.0	--	2.8	-2.7
Indonesia	0	1.5	-1.6	0	1.4	-1.4	0	1.6	-1.6
Other Asia	16.8	25.1	-7.8	17.4	24.6	-7.7	19.9	26.5	-7.2
Egypt	1.8	8.5	-6.6	1.9	8.5	-6.7	1.9	8.7	-7.0
Morocco	2.0	4.2	-2.5	2.1	4.2	-1.9	3.3	4.5	-1.5
Other N. Afr./ME	9.9	25.4	-15.0	13.2	26.1	-12.1	12.6	26.8	-14.4
Other Africa	3.2	8.4	-5.5	2.9	8.1	-4.7	3.4	8.6	-5.2
Residual	.5	.4	-.7	.3	.1	-2.0	.4	.2	-2.4
World	515.6	497.9		503.7	494.7		505.6	504.3	

Trade on July-June years. -- = negligible. P = projected.

Rice: World production, consumption, and net exports

Country	1984/85			1985/86			1986/87 P		
	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.
	Million metric tons								
Major exporters									
United States	4.4	1.9	1.8	4.4	2.1	2.1	4.1	2.2	2.5
Thailand	13.1	8.8	4.0	13.0	9.0	4.4	12.9	9.1	4.0
Pakistan	3.3	2.4	1.0	3.0	2.2	1.0	3.4	2.3	.9
China	124.8	123.9	.9	117.9	117.2	.8	121.8	121.1	.8
India	58.6	57.0	.2	61.0	60.3	.2	60.0	60.8	.2
Burma	9.3	8.8	.5	9.3	8.7	.6	9.4	8.8	.6
Japan	10.8	10.2	--	10.6	9.8	--	10.1	9.7	--
Italy	.7	.3	.4	.7	.3	.4	.8	.3	.4
Australia	.6	.1	.4	.5	.1	.4	.5	.1	.3
Major importers									
Indonesia	25.9	25.2	+.4	26.5	26.2	+.3	26.5	26.5	--
South Korea	5.7	5.5	0	5.6	5.8	0	5.5	5.6	0
Bangladesh	14.6	14.9	-.3	15.2	15.4	-.2	15.6	15.8	-.3
Vietnam	10.0	10.4	-.4	9.8	10.2	-.5	10.3	10.7	-.4
Other Asia	17.2	18.7	-1.5	18.0	19.2	-1.1	18.1	19.3	-1.2
USSR	1.8	1.9	-.1	1.8	1.9	-.1	1.8	1.9	-.1
Brazil	6.1	6.4	-.4	6.8	7.3	-1.2	6.5	7.1	-.5
Other Latin Am.	4.8	4.6	+.2	4.9	4.8	-.2	4.8	5.1	-.2
Iran	.9	1.5	-.6	.9	1.6	-.7	.9	1.7	-.7
Other N. Afr./ME	1.8	3.7	-1.8	1.8	3.7	-1.7	1.9	3.9	-1.9
Malagasy	1.4	1.5	-.1	1.4	1.5	-.2	1.4	1.5	-.2
Nigeria	.9	1.5	-.4	1.0	1.3	-.1	1.1	1.2	-.2
Other Africa	1.9	4.0	-2.0	2.0	4.1	-2.1	2.0	4.2	-2.2
Residual	.7	1.9	-2.2	.7	2.2	-2.1	.6	1.8	-1.8
World	319.3	315.1		316.8	314.9		320.0	320.7	

Trade on calendar years; P = projected.

Coarse grains: World production, consumption, and net exports

Country	1984/85			1985/86 E			1986/87 P		
	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.
	Million metric tons								
Major exporters									
United States	237.7	163.8	54.7	274.3	170.6	34.0	252.3	170.5	46.2
Canada	22.0	18.6	2.8	25.0	18.9	4.5	27.0	19.5	6.2
Australia	8.6	2.9	6.3	8.0	2.8	5.0	7.2	2.9	3.8
Argentina	18.6	7.2	10.6	17.6	7.8	10.3	17.7	7.3	9.9
Thailand	4.7	1.2	3.4	5.5	1.2	3.8	4.5	1.3	3.2
South Africa	8.7	6.8	-.4	8.8	7.4	1.1	9.9	7.4	1.8
Major importers									
USSR	86.0	110.9	-27.3	94.0	106.5	-13.0	86.0	104.0	-17.0
China	96.2	90.7	+5.4	84.2	78.2	+6.3	93.6	88.4	+5.5
Eastern Europe	72.9	72.7	-.3	69.4	73.5	-3.3	71.6	71.1	-.9
EC-12	89.6	85.6	-1.8	88.0	84.0	+4.4	80.3	82.2	+.5
Other W. Europe	13.9	12.8	+.6	13.1	12.2	+1.3	12.7	12.4	+.4
Brazil	22.5	23.1	-.4	20.7	23.3	-2.0	23.1	23.2	-.6
Mexico	14.5	18.8	-4.2	14.2	18.1	-2.5	13.3	18.2	-4.8
Venezuela	1.1	2.6	-1.6	1.5	2.3	-.9	1.6	3.1	-1.5
Other Latin Am.	8.5	10.2	-1.8	8.3	10.1	-1.6	8.7	10.9	-2.2
Japan	.4	21.3	-20.7	.4	21.4	-21.3	.4	22.5	-22.1
Taiwan	.3	4.3	-4.0	.3	4.5	-4.2	.3	4.7	-4.3
South Korea	.9	4.4	-3.4	.7	4.9	-4.1	.6	4.9	-4.3
Other Asia	47.3	50.4	-2.2	45.3	48.1	-1.8	47.2	49.3	-2.4
Egypt	4.4	7.0	-1.7	4.4	6.5	-1.9	4.7	6.6	-1.9
Iran	1.3	2.7	-1.3	1.3	2.8	-1.6	1.5	3.0	-1.5
Israel	.1	1.1	-1.0	—	1.1	-1.1	—	1.1	-1.1
Other N. Afr./ME	14.6	25.3	-10.8	20.2	29.8	-10.5	20.2	30.9	-11.9
Other Africa	33.6	34.4	-1.6	37.8	38.1	+.5	37.0	38.5	-.8
Residual	.7	.4	+.7	.9	.5	-1.4	.9	.6	-.2
World	809.1	779.2		843.9	774.6		822.3	784.5	

Production on crop year basis, trade on October-September year. Includes corn, barley, sorghum, oats, millet, rye, and miscellaneous grains. E = estimated. P = projected. -- = negligible.

International commodity prices

Year	Wheat				Corn		Soybeans	Soyoil	Soymeal 44%	
	U.S. 1/	Arg. 2/	Can. 3/	Aust. 4/	U.S. 5/	Arg. 2/	U.S. 5/	U.S. 6/	U.S. 6/	Hamburg 7/
	Dollars per metric ton									
1977	105	100	116	113	98	93	271	524	212	240
1978	131	126	134	119	105	102	259	565	189	226
1979	162	159	171	142	118	117	278	610	160	254
1980	176	203	192	175	129	159	272	522	217	271
1981	176	190	194	175	135	139	272	464	223	269
1982	161	166	165	160	110	109	233	404	197	233
1983	158	138	167	161	137	133	269	518	222	255
1984	153	135	166	153	138	132	271	678	184	210
1985	137	106	173	141	114	103	214	596	140	171
1986										
Jan.	133	108	189	140	108	100	210	447	168	197
Feb.	131	102	183	133	105	92	207	404	169	201
Mar.	136	97	189	139	101	87	208	384	180	210
Apr.	138	96	187	137	102	86	205	389	173	205
May	128	90	185	131	106	90	205	391	174	199
June	107	85	169	114	106	90	203	369	175	191
July	103	81	160	104	85	84	200	357	179	193
Aug.	104	80	137	104	74	82	198	312	182	200

1/ No. 2 hard winter, ordinary protein, f.o.b. Gulf ports. 2/ F.o.b. Buenos Aires. 3/ No. 1 western red spring, 13.5% protein, in store Thunder Bay. 4/ July-June crop year, standard white, f.o.b. selling price. 5/ U.S. No. 3 yellow, f.o.b. Gulf ports. 6/ Decatur. 7/ F.o.b. ex-mill.

1986/87, approximately the same as in 1985/86, but down 10 million from 1984/85. Most of the use is in the centrally planned countries of the USSR and Eastern Europe, where feed use of all grains is forecast at almost 225 million tons, slightly below the 229 million record set in 1984/85.

By July 1986, Soviet state and collective farms were close to or above record inventories of cattle, hogs, and poultry. Slaughtering patterns thus far in 1986/87 show little deviation from normal. However, the estimates of Soviet grain fed indicate that feeders are slowly becoming more efficient. During the last 4 years, for example, while the forecast of grain for feed use has fallen slightly, official Soviet data indicate an increase of about 15 million head. While most of the increase is in poultry, hog numbers have risen 3 percent.

Wheat Feeding Strengthens

Global wheat feeding has grown somewhat in recent years, because of the large increases in supplies of feed-quality wheat. This may have helped to offset a small decline in coarse grain feeding. Wheat feeding increased sharply in the 1960's, tripling the early 1960's rate by 1970. Growth slowed in the 1970's and even declined in 1981. Since then, however, there has been renewed growth, and feeding is forecast at 96 million tons in 1986/87.

Many major foreign wheat export competitors--including Canada, the EC, and Australia--have vast surpluses of wheat available for export. Much of the EC supply is of feed quality, and adverse weather in recent years has created large quantities of feed wheat in Canada and Australia. As a result, the competition among feed exporters has heightened.

Countries typically feed commodities they grow well or have in abundance. Therefore, feed wheat consumption in a number of countries is a function of production. The Soviet Union feeds more wheat than any other developed nation. Also, increased supplies of Soviet feed-quality wheat have boosted wheat's price-competitive position vis-a-vis other feed grains.

Feed consumption of wheat among the major wheat importers is about 53 million tons a year. In recent years, the USSR has diverted its domestically produced low-quality wheat crop out of food use into livestock feed, and turned to imports for higher quality wheat. Feed use of wheat in the USSR is forecast at 37 million tons in 1986/87. Residual feed use is shared among many other wheat importers.

Feed use among the major wheat exporters is forecast at 28 million tons in 1986/87, about the same as in 1985/86 and 1984/85. About 85 percent of this will be in the EC-12, where wheat feeding has increased slightly since 1984/85 as coarse grain feeding dropped. Since wheat inventories remain large and tighter controls are placed on the quality of wheat allowed into intervention stocks, additional quantities of wheat may be fed.

Wheat feeding in Canada, Australia, and Argentina continues small. The United States is expected to feed around 8.2 million tons (28 percent of total use) in 1986/87, up from last year but well below 1984/85's 11.2 million. Much of the wheat feeding in the United States comes in the summer quarter because of lower prices prior to the new-crop corn harvest in the fall.

Coarse Grain Feed Use Remains High

Global feed use of coarse grains in 1986/87 is forecast at 506 million tons, down marginally from 1985/86. Almost 85 percent of all grains fed are coarse grains--mostly barley, corn, and sorghum. While food and other nonfeed uses account for more than one-third of total coarse grain use, this is largely a function of domestic production. Most of the 100 million tons of coarse grains in world trade are for feeding.

While foreign users will account for over 90 percent of wheat feeding in 1986/87, less than 75 percent of global coarse grain feeding is outside the United States. For corn, the figure drops to about 65 percent. Foreign feed consumption in 1986/87, at 371 million tons, is about the same as 1985/86 and 1 percent smaller than 1984/85, with the decline paced by smaller use among the major importers.

The major foreign coarse grain exporters feed about as much coarse grain as foreign wheat exporters feed wheat. In 1986/87, coarse grain competitors will feed about 29 million tons, up only marginally over recent

years. Canada's feed use (mostly barley) is forecast at over 16 million tons, slightly higher than the average of the last 2 years. Canadian coarse grain production this year is forecast at record levels, which may indicate some pressure to boost feeding of domestic coarse grains and reduce imports.

Feed use in 1986/87 among the major importers, forecast at 237 million tons, will be down 1 percent from last year, and about 3 percent from 1984/85. About 40 percent of the importers' feed use is corn. Feed use of coarse grain is concentrated in the EC, Eastern Europe, Japan, and the USSR. Of these, Soviet use fluctuates the most, falling from 80 million tons in 1984/85 to 74 million in 1986/87, despite continued large Soviet coarse grain imports.

Developing Countries Feed More Grain

The developing countries account for less than one-sixth of global feed consumption, but in recent years have been the main growth market; they are expected to feed more than 90 million tons in 1986/87. Although their feed use has grown 6.5 percent annually since 1960/61, their domestic production has grown just over 4 percent. This has intensified their need to import grain for feed, a trend that is likely to continue in the coming years. Grain feeding, although only 16 percent of total cereals use in 1985/86, has steadily grown from 11 percent in 1975 and 8 in 1965. *[James Cole (202) 786-1691]*

Oilseeds

Record soybean, peanut, and rapeseed crops will push 1986/87 world oilseed production to a record 197.5 million tons. An expanding world livestock sector and growing meal demand will have to provide much of the support for the oilseed complex in 1986/87, since edible oil prices are projected to fall from their already depressed levels.

The weak oil market will squeeze crush margins and limit declines in meal prices. Despite a larger crush, and consumption gains in both oil and meal, 1986/87 ending stocks of oilseeds and vegetable oils will increase again. World trade in oilseeds and vegetable oil will expand somewhat, but protein meal trade will show little growth.

Record 1986/87 carryin stocks, together with the cut in the U.S. loan rate for soybeans from $5.02 to $4.77 per bushel, will put downward pressure on world prices. However, most of the world's adjustment to the record oilseed supplies and low prices is occurring in the United States. U.S. acreage of all oilseeds except peanuts and flaxseed is down.

Foreign Production Up Again

Foreign oilseed production is projected to increase 5.5 percent to 137 million tons. Part of this gain is provided by a forecast recovery of soybean production in Brazil and Paraguay following last year's drought. Soybean area has increased in China, and sizable gains in global peanut and rapeseed area and production are also projected.

World soybean exports are expected to increase 5.5 percent to 27.7 million tons. If the expected recovery in Southern Hemisphere soybean production occurs, exports from that region will increase and limit growth of U.S. soybean exports.

Meal Use To Rise

World 1986/87 consumption of protein meals will rise 2 percent to a record 107 million tons. Consumption of soybean meal, nearly 60 percent of the total, is projected to increase almost 3 percent. Gains in meal consumption are greater than the expected increase in world meat production, reflecting the trend toward more intensive feeding in many areas of the world. The relatively rapid gains expected for poultry production will boost meal use, since the share of meal in the ration is larger for poultry than for other livestock.

Following the pattern of recent years, East Asia and North Africa/Middle East will show the largest increases, 7 percent or more, in soybean meal consumption during 1986/87. Consumption will increase about 2 percent in the EC-12, which now accounts for about 30 percent of world soybean meal consumption. Drought has curtailed EC rapeseed production, and soymeal prices have become increasingly attractive as the dollar drops relative to European currencies.

Soybeans and products: World production, consumption, and net exports

Country	1984/85			1985/86 E			1986/87 P		
	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.
	Million metric tons								
Soybeans									
Major exporters									
U.S.	50.64	28.03	16.28	57.11	28.71	20.14	53.88	29.26	20.68
Brazil	18.28	13.13	3.10	13.40	12.30	1.00	16.50	12.80	1.65
Argentina	6.50	3.86	3.29	7.30	3.90	2.75	7.50	4.20	2.90
China	9.70	1.59	1.05	10.50	1.79	1.30	11.00	1.86	1.10
Major importers									
EC-12	.14	12.43	-12.89	.34	12.52	-12.72	.63	12.93	-12.72
Japan	.24	3.79	-4.61	.23	3.95	-4.75	.23	3.98	-4.85
Eastern Europe	.77	1.26	-.59	.53	1.36	-.90	1.63	1.43	-.79
Mexico	.55	2.00	-1.43	.75	1.73	-1.00	.50	1.85	-1.35
Taiwan	.01	1.20	-1.47	.01	1.34	-1.62	.02	1.47	-1.70
USSR	.47	1.13	-.85	.47	2.25	-2.00	.50	2.28	-2.00
Residual	5.43	5.38	-1.88	5.61	5.89	-2.20	5.42	6.36	-2.92
World	92.73	73.80		96.25	75.74		97.81	78.42	
Soybean meal									
Major exporters									
U.S.	22.25	17.67	4.46	22.69	17.24	5.58	23.01	17.60	5.35
Brazil	10.17	1.99	8.44	9.51	2.16	7.45	9.89	2.30	7.60
Argentina	3.08	.27	2.88	3.11	.30	2.90	3.35	.28	3.00
Major importers									
EC-12	9.87	18.11	-8.27	9.98	17.65	-7.71	10.28	17.99	-7.69
Eastern Europe	1.02	4.57	-3.54	1.09	4.84	-3.80	1.15	5.00	-3.88
USSR	.86	1.41	-.55	1.75	2.35	-.60	1.78	2.38	-.60
Japan	2.92	3.12	-.09	3.05	3.18	-.22	3.07	3.29	-.13
Mexico	1.46	1.50	-.08	1.26	1.38	-.05	1.35	1.38	-.05
Residual	6.55	10.68	-3.25	7.27	11.53	-3.55	7.79	12.13	-3.60
World	58.18	59.32		59.71	60.63		61.67	62.35	
Soybean oil									
Major exporters									
U.S.	5.20	4.50	.75	5.29	4.49	.57	5.36	4.60	.54
Brazil	2.46	1.55	.82	2.30	1.72	.37	2.39	1.81	.60
Argentina	.64	.07	.50	.66	.09	.55	.70	.09	.62
EC-12	2.23	1.39	.79	2.22	1.36	.83	2.29	1.45	.82
Major importers									
India	.15	.57	-.40	.17	.49	-.22	.20	.50	-.30
Pakistan	0	.19	-.17	0	.22	-.23	0	.25	-.25
Eastern Europe	.19	.38	-.20	.21	.40	-.19	.23	.39	-.17
Iran	.02	.34	-.32	.02	.35	-.32	.02	.37	-.35
Morocco	0	.13	-.12	0	.13	-.13	0	.15	-.15
Residual	2.42	3.94	-1.65	2.71	3.90	-1.23	2.83	4.07	-1.36
World	13.31	13.06		13.58	13.15		14.02	13.68	

For soybeans, consumption refers to crush. Trade and consumption on marketing year except for Brazil and Argentina which are on an October-September year. E = estimated. P = projected.

World Meal Trade Stagnant

Overall world trade in protein meal, at 33.4 million tons, is expected to grow very little in 1986/87. Soybean meal exports will drop slightly. North Africa and the Middle East, where poultry production has been expanding rapidly, and where there is very little domestic oilseed production, is, as usual, likely to be the major growth market for meal. Other regions are meeting increases in meal needs from domestic production or through larger imports of oilseeds.

With no growth in world soybean meal trade, and larger export availabilities likely in the Southern Hemisphere, U.S. soymeal exports in 1986/87 are expected to drop about 4 percent to 5.4 million tons. *[Frederic Surls (202) 786-1691]*

Meat

World meat production is expected to grow around 1 percent in 1986, as a marginal decline in beef, veal, lamb, and mutton will be

more than offset by increased pork and poultry meat. While even larger declines in beef are forecast for next year, gains in the other meats will push total meat 1 percent above 1986.

U.S. meat output will grow about 1 percent in 1986, as a sharp drop in pork is offset by a small gain in beef and a substantial increase in poultry meat. For 1987, total red meat and poultry may show little difference from this year. Pork output may turn around later in the year and show a small increase for 1987. Reduced inventories will lead to a 1.4-billion-pound decline in beef production, while poultry output expands by a similar amount.

Foreign meat output will show the most strength. After gaining about 1 percent this year, it could increase 2 percent in 1987. Foreign output of beef and lamb is declining this year, but should show some increase next year along with continued gains in pork and poultry.

Government Policies Play a Major Role

World meat output continues to be pressured by a number of factors, such as weather, but domestic and trade policies of many countries remain the most potent force shaping the outlook. World trade has been restricted by import policies designed to shield domestic producers, and by attempts to boost meat output in traditional importing countries by subsidizing grains and other feed inputs. Foreign exchange constraints also continue to restrict meat or feed-ingredient imports.

On the export side, the need for foreign exchange earnings has led some countries, particularly in Eastern Europe, to export meat in spite of strong domestic demand. Also, attempts by the EC and the United States to reduce dairy surpluses have caused increased output and abnormal trade flows of beef.

Cattle Inventories Drop; Beef To Decline

Cattle inventories are decreasing mainly because of declining EC dairy cattle numbers, lower U.S. dairy and beef cattle numbers, and the effects of a drought in India. Inventories continue to build in the USSR, following a mild winter and record 1986 forage supplies. Global beef and veal production rose 2 percent last year but will be down marginally in 1986 and 1 percent next year. However, beef production in the major exporting countries while also declining in 1986 will rise next year.

Beef and veal production

Country	1984	1985	1986 E	1987 P
	Thousand metric tons			
United States	10,928	10,996	11,082	10,409
Canada	997	1,035	1,020	985
Mexico	1,323	1,339	1,252	1,298
Argentina	2,558	2,740	2,700	2,650
Brazil	2,300	2,400	2,200	2,400
France	1,936	1,845	1,805	1,868
Germany, Fed. Rep.	1,614	1,576	1,625	1,630
Italy	1,182	1,205	1,206	1,190
Total EC-12	7,900	7,840	7,739	7,758
Eastern Europe	2,471	2,550	2,397	2,371
USSR	7,244	7,400	7,600	7,700
Australia	1,248	1,338	1,381	1,390
Other	4,899	5,228	5,274	5,334
Total	41,868	42,866	42,645	42,295

E = estimated. P = projected.

Australian cattle inventories continue to build, but dry conditions that began late in 1985 and extended into this year will limit the gain. If producers expect continued declines in the Australian dollar, and higher beef prices in major markets, such as the United States, herd rebuilding could continue next year.

New Zealand's cattle numbers as of June 1 were abnormally high because a 7-week strike by meat processors earlier in the year caused a backlog in cattle slaughter. Even though better returns will encourage producers to shift from sheep to cattle production, beef output in October 1986-September 1987 will be up.

In Japan, the cattle inventory has increased due to continued strength in the beef market and lower feed prices. On the other hand, Argentina continues to liquidate herds as crops have taken over some pasture land and relegated cattle to more marginal areas. Brazil's herd, although hurt by drought, is expanding as producers withhold cattle from slaughter in protest over the Government's retail price freeze. The Government has countered this move by importing more beef, especially from the EC and the United States.

The use of growth hormones in meat production will be banned in the EC beginning

January 1987, and will be applied against imported meat and offals in January 1988. The major exporters are not yet certain how to achieve certification of hormone-free meat.

Although production by the major importers may rise almost 1 percent this year, a 2-percent drop is forecast for next year. The carryover of large beef stocks and ample output by exporters will keep trade levels high.

Inventories and Pork Production To Climb

Hog inventories rose 3 percent during 1985 and are likely to be up 2 percent this year. However, a slowdown next year in China, which has about 45 percent of the world's hog population, could lead to 1987 growth under 1 percent. While a surge in China's pork output led to 5-percent growth in world output last year, reduced U.S. outturn will result in only a 1-percent gain in 1986. Pork production may be up around 2 percent in 1987, largely because of lower feed prices.

In the EC, lower feed prices helped maintain favorable returns, prompting a 2-percent growth in hog numbers to 97 million head at the beginning of 1986. The largest gains were in the Netherlands, West Germany, and Denmark. Feed prices have remained low and inventories continue to build. While the herd may be up 2 percent by the end of 1986, growth is forecast to slow in 1987 as large meat supplies dampen prices. Thus, EC pork production may show little expansion in 1987.

Pork production

Country	1984	1985	1986 E	1987 P
	Thousand metric tons			
United States	6,719	6,716	6,389	6,443
Canada	863	900	875	900
Mexico	942	865	922	936
Germany, Fed. Rep.	2,734	2,753	2,820	2,860
France	1,625	1,607	1,622	1,615
Netherlands	1,257	1,340	1,430	1,490
Total EC-12	11,100	11,187	11,495	11,551
Eastern Europe	6,473	6,546	6,676	6,681
USSR	5,927	5,900	5,850	5,850
China	14,447	16,495	17,000	17,600
Japan	1,424	1,531	1,500	1,560
Other	3,738	3,926	4,029	4,048
Total	51,633	54,066	54,736	55,569

E = estimated. P = projected.

Hog inventories in Eastern Europe, at 71 million head, were down 3 percent at the beginning of 1986. Drops in Yugoslavia, Romania, and East Germany were the main reason. While another 1-percent decline is expected by the end of the year, a marginal increase is likely in 1987. Poland's inventories rose 11 percent last year, but are expected to drop 1 percent this year and next. Continuing limits on feed imports means Eastern Europe's pork production remains largely dependent on domestically produced feedstuffs.

The Soviet Union's tight feed grain supplies led to a slight drop in hog numbers during 1985. Inventories, as well as pork output, are likely to be slightly below 1985 this year and next unless grain availabilities improve.

Although hog numbers in Japan have been steadily increasing, inventories may peak at the end of this year and decline slightly next year. Canadian hog inventories were down 3 percent at the beginning of 1986, but may rise a modest 2 percent to 10.9 million head at the beginning of 1987. Continued increases are expected next year.

Poultry Gains Accelerate

Poultry meat production is projected to rise 4 percent in 1986, about the same as last year. A 5-percent increase is forecast for 1987. Lower feed prices and availabilities of red meat have helped boost poultry meat output. Price, versatility, and publicity as a low-fat meat are some of the qualities that have helped poultry become a ready substitute

Poultry production

Country	1984	1985	1986 E	1987 P
	Thousand metric tons			
United States	7,427	7,865	8,346	8,958
Canada	559	608	628	653
Mexico	646	627	608	637
Brazil	1,398	1,530	1,650	1,850
France	1,247	1,272	1,303	1,290
Total EC-12	5,219	5,312	5,417	5,450
Eastern Europe	1,928	1,943	1,978	2,038
USSR	2,686	2,700	2,750	2,800
Japan	1,309	1,395	1,399	1,424
Other	3,058	3,185	3,321	3,483
Total	24,230	25,165	26,097	27,293

E = estimated. P = projected.

for red meat in many diets. Expanding fast food industries have also increased demand for poultry products.

For many countries a quick, reasonable way to increase meat consumption has been to import poultry or build their own poultry industries. For example, the Mideast first imported large quantities of poultry meat to increase per capita meat consumption, but is now striving for poultry self-sufficiency by subsidizing feed and production inputs. Yet, attractive prices for frozen poultry offered by major suppliers have caused consumer demand to boom, allowing imports to remain substantial despite higher production.

Although the major importers' output continues to grow, the expansion may slow slightly because of lower oil revenues in the Mideast. Output in the major exporting countries continues to gain at a greater rate, but contrary to only a few years ago it is destined mainly for domestic consumption. France increased output 2 percent last year and a similar gain is expected in 1986. Next year, a marginal decline is forecast as ample supplies weaken producer prices.

Brazil's output is gaining, but only for consumption, not exports, particularly in light of the backlash to the Government's anti-inflation measures, which are reducing beef supplies on the domestic market.

Japan's output has stagnated in 1986 even with lower feed prices. The devaluation of the dollar against the yen has increased demand for imports, reduced demand for domestically produced chickens, and lowered prices. The expanding fast food industry in Hong Kong is relying on increased imports to meat its needs, following problems with domestic production because of pollution problems and a cancer scare stemming from use of growth hormones. *[Linda M. Bailey (202) 786-1691]*

Cotton

The world cotton glut will continue in 1986/87, keeping prices low, in spite of smaller production and larger consumption. Production will fall 6 percent from 1985/86's 79 million bales, while consumption will increase 3 percent to 76.5 million. Imports are projected to rise 1.5 million bales to more than 22 million, the largest since the record 23 million in 1979/80. Stocks at the end of 1986/87 are expected to be down 6 percent to 44 million bales, but they will remain excessive.

Much of the adjustment will occur in the United States. U.S. area is estimated to be down 13 percent this year, and combined with lower yields, will cut production 22 percent. Foreign area and production are forecast to be off only 2 to 3 percent. U.S. exports are expected to more than triple last year's 40-year low of just under 2 million bales.

Some major producers, such as Australia, Brazil, and Mexico, have responded to excess supplies and low prices by reducing cotton area this season. But others--China, Pakistan, and India--took no specific action to discourage production. Pakistan set farm gate prices equal to last season.

Foreign Exports To Fall

With increased U.S. competition, foreign exports are expected to fall almost 2.5 million below 1985/86's 18 million bales. But many important producers will continue to export aggressively. Large exports from China and Pakistan will be influenced primarily by excessive stocks, high storage costs, the lack of storage facilities, and the need for hard currency earnings. Despite reduced production in Australia, high interest rates, burgeoning storage costs, and low domestic consumption continue to encourage exports.

The Soviet Union likely will experience greater export competition in markets outside Eastern Europe, and is expected to counter any reduction in sales to these areas with increased Eastern European shipments. Egypt should have little difficulty continuing to market added amounts of its high-quality, extra-long-staple variety. And because cotton is virtually their only exportable product, the Sudan and other African producers, such as Chad, Mali, and Burkina, will also continue to promote their exports aggressively. A few countries, particularly Brazil, Mexico, and Argentina, are expected to reduce exports because of lower production and increased domestic use of their own crop.

Cotton: World production, consumption, and net exports

Country	1984/85			1985/86			1986/87 P		
	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.
	Million 480-lb. bales								
Major exporters									
United States	13.0	5.5	6.2	13.4	6.4	1.9	10.5	6.8	6.5
USSR	10.8	9.6	2.1	12.1	9.7	2.4	11.7	9.8	1.9
Pakistan	4.6	2.3	1.2	5.7	2.4	3.0	5.3	2.5	2.5
Egypt	1.8	1.5	.4	2.0	1.6	.5	2.0	1.6	.4
Turkey	2.7	1.9	.7	2.4	2.1	.3	2.2	2.1	.2
Central America	.8	.2	.5	.6	.2	.4	.4	.2	.1
Sudan	.9	.1	.6	.7	.1	.7	.7	.1	.7
Brazil	4.4	2.7	.3	3.8	3.1	.2	3.4	3.3	.1
Mexico	1.2	.6	.6	1.0	.7	.4	.8	.7	.1
India	7.9	7.1	.1	8.4	7.2	.3	8.0	7.4	.4
China	28.7	15.5	1.1	19.0	17.5	2.7	19.3	17.5	2.7
Major importers									
Western Europe	.9	5.9	-4.9	1.1	5.9	-4.8	1.1	6.2	-5.2
Japan	0	3.2	-3.1	0	3.0	-2.9	0	3.0	-3.0
Eastern Europe	.1	3.7	-3.7	.1	3.9	-3.9	.1	4.1	-4.1
South Korea	--	1.6	-1.6	--	1.7	-1.6	--	1.7	-1.7
Taiwan	0	1.2	-1.3	0	1.4	-1.4	0	1.6	-1.6
Hong Kong	0	.7	-.9	0	.7	-.9	0	.8	-1.0
Residual	9.2	6.6	+1.7	8.7	6.7	+2.7	8.6	7.1	+1.0
World	87.0	69.9		79.0	74.3		74.1	76.5	

Year beginning August 1; consumption is mill use. -- = negligible. P = projected.

Foreign Consumption To Rise

Sharply lower cotton prices, substitution of cotton for synthetic fibers, and rising global textile production will contribute to the gain in cotton consumption in 1986/87. U.S. consumption is projected to rise 7 percent, while foreign consumption is likely to show a significant but smaller gain.

Growth of foreign consumption is uneven. Textile expansion in Japan and Western Europe is being limited by relatively slow economic growth, high wage rates, and increased competition from East Asian imports in domestic textile markets. But, these major Asian textile exporters--Taiwan, Hong Kong, and South Korea--are more optimistic, since their textile trade was not further restricted by the Multifiber Arrangement negotiations and world cotton prices are low. Their cotton consumption is forecast to grow between 4 and 15 percent this year. Newer textile producers, such as Thailand and Indonesia, which face fewer import restrictions, are also expanding consumption rapidly. Since most of the countries where consumption is growing quickly this year are major cotton importers, world cotton imports will show the largest gain since 1979/80. *[Carolyn L. Whitton (202) 786-1691]*

Tobacco

Tobacco Output Declines

World tobacco output in 1986 is forecast at 6.6 million tons (farm-sales weight), down 4 percent from 1985, mainly due to smaller crops in China and the United States. The flue-cured crop is down 7 percent and burley 4. Oriental leaf is expected to rise 3 percent.

Drought and reduced flue-cured production quotas lowered 1986 U.S. output about 19 percent to 553,000 tons. The flue-cured crop, 55 percent of the total, is expected to decline 17 percent to 301,000 tons. The auction price for flue-cured leaf declined 5 percent in 1985 to $1.72 a pound, and lower prices in 1986 are expected because of lower support prices.

China's planted area of 1.2 million hectares is about 6 percent lower, and output of 2.1 million tons will be approximately 7 percent less than last season's record 2.3 million. Flue-cured in China (55 percent of world output) decreased about 8 percent, due to a 7-percent decline in area. Decreases are also expected in Brazil, Italy, Pakistan, the Philippines, Canada, Poland, Pakistan, and Thailand.

Tobacco: World production, consumption, and net exports

Country	1984			1985 1/			1986 F		
	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.
	Thousand metric tons 2/								
Major exporters									
United States	706	651	33	623	618	47	491	630	70
Brazil	325	140	187	321	153	200	280	155	170
Zimbabwe	111	3	87	96	3	99	102	3	99
Greece	138	35	93	143	35	79	145	36	98
Turkey	147	84	70	146	84	103	149	85	80
India	463	393	81	444	401	64	451	401	71
Italy	137	81	72	148	80	45	139	80	55
Malawi	65	2	64	69	2	65	70	2	62
Bulgaria	127	93	26	108	88	27	126	89	30
China	1,722	1,616	16	2,236	1,789	9	2,064	1,892	14
Major importers									
Germany, Fed. Rep.	6	126	-120	7	165	-158	7	137	-130
United Kingdom	0	135	-125	0	134	-114	0	136	-124
Netherlands	0	72	-63	0	80	-72	0	80	-77
Spain	36	114	-70	35	105	-66	34	107	-64
Belgium	2	37	-29	2	38	-34	2	40	-43
France	31	56	-27	31	68	-38	31	72	-41
USSR	343	405	-101	345	425	-97	345	445	-97
Japan	122	201	-67	105	191	-68	112	185	-71
Egypt	0	48	-45	0	46	-33	0	49	-51
Germany, Dem. Rep.	5	25	-20	6	26	-21	6	26	-20
Residual	1,408	1,408	-62	1,384	1,403	-37	1,400	1,411	-31
World	5,894	5,725		6,249	5,934		5,954	6,061	

1/ Preliminary. 2/ Dry weight. F = forecast.

Consumption Up in 1986

World leaf consumption in 1986 could reach a record 6.1 million tons (dry weight). China, the world's largest consumer, is expecting a 6-percent increase, reflecting a continuing rise in cigarette output. U.S. domestic consumption is rising from last year's low 618,000 tons to around 630,000 in 1986 because of an increase in filtertip cigarette sales. In major foreign exporting countries, consumption is predicted to increase 4 percent to 2.7 million tons. The major foreign importing countries' consumption is forecast to remain near 1985's 1.3 million tons, as falling consumption in West Germany and Japan about offsets increases in the USSR, the United Kingdom, France, Spain, and Egypt.

Tobacco Exports Unchanged

World exports of unmanufactured tobacco in 1986 may remain near the 1.4 million tons of 1985 because of decreased demand in developed countries. Brazil, the world's second largest exporter, is forecast to export 170,000 tons in 1986, 15 percent less than last year because of a major drought and poor quality. Export gains for Greece, Zimbabwe, India, Canada, and Thailand will more than offset declines for Turkey, Malawi, and the Republic of Korea.

U.S. Export Value Down; Volume Up

U.S. unmanufactured tobacco exports are expected to decline 2 percent in 1986 to $1.5 billion, with a unit value 7 percent lower than 1985's $2.77 a pound. The volume, however, is expected to increase 4 percent to about 260,000 tons. Because of lower U.S. prices and drought in Brazil, the U.S. share of the export market may increase to 18 percent in 1986, compared with the 22-percent average of the seventies. Japan, in its fiscal year ending March 1986, increased imports from the United States 5 percent to 49,000 tons, boosting the U.S. market share from 65 percent to 67. *[Charles E. Goode (202) 786-1625]*

REGIONAL DEVELOPMENTS

Western Hemisphere

North American Red Meat Production Down

The livestock sectors in the United States and Canada are closely related because of similar demand conditions, production trends, and relatively free trade for many products. Trends in beef and poultry production and consumption have been similar in the eighties, although patterns in the two countries' pork sectors have diverged. Canadian grain prices likewise reflect U.S. grain prices. Canadian wheat and coarse grain prices for the 1986/87 crop year have already fallen in response to declines in U.S. loan rates.

A North American market exists for cattle and beef; the cattle cycles in the two countries parallel each other. Inventories in both countries have been declining since 1982 and are the lowest in over 2 decades. Beef production is expected to fall in Canada in 1986 and increase marginally in the United States. Reduced calf crops and beef cow inventories are setting the stage for declining production and higher prices over the next several years, until producers rebuild breeding herds. Per capita beef consumption peaked in the mid-seventies and has been stagnant in the eighties.

Hog cycles and pork production in the United States and Canada have not been as closely aligned. Canadian pork production expanded sharply during the eighties, reflecting the impact of federal and provincial stabilization programs, while U.S. production contracted. However, pork production in both countries is expected to decline in 1986. North American hog prices climbed sharply this summer, but production increases are not expected until later in 1987 due to a need to pay down debt as well as to lagged production response. Per capita pork consumption has been slipping in the eighties in both countries.

Poultry Sectors Continue Strong

In contrast to beef and pork, production and consumption of poultry has been growing in both the United States and Canada. Poultry output is expected to increase again in 1986. Canadian production and consumption growth has lagged that in the United States, because the Canadian supply management system fixes production quotas and keeps prices higher.

U.S. broiler prices are expected to remain above a year earlier during the rest of 1986, reflecting strong consumer demand and higher red meat prices.

Large North American Livestock Trade

Trade in live animals and meat between the United States and Canada is significant, accounting for over a third of the value of agricultural trade between the two countries in 1985. Live cattle flow both ways across the border, with western Canada generally exporting feeder cattle and slaughter cows to the United States, and eastern Canada importing U.S. slaughter cattle.

However, this year Canada is exporting more slaughter steers and heifers, and fewer slaughter cows and feeder cattle. Demand for feeder cattle is high now in western Canada. Canada is a net beef exporter to the United States, although this year Canada's exports to and imports from the United States are expected to decline.

Canada is also a net pork and hog exporter to the United States, and exports have grown sharply during the eighties due to large Canadian supplies and the weak Canadian dollar. Live hog exports will fall by more than half this year following the imposition of a countervailing duty last summer, but this decline will be offset by increased pork exports to the United States. U.S. pork exports to Canada have dropped to very low levels since peaking in the late seventies.

The United States is a net poultry meat exporter to Canada. The Canadian supply management system makes Canadian prices uncompetitive in U.S. markets. Canadian import quotas for the current year are set at 6.3 percent of the previous year's production. Thus, imports have been growing along with Canadian production. U.S. exports are expected to increase slightly in 1986.

Argentine Cattle Sector Suffers

Since 1977, Argentina's beef cattle industry has been liquidating. Inventories recovered briefly between 1982 and 1984, but

beginning in 1984 slaughter increased rapidly and inventories fell. Beginning inventories on July 1, 1986, were an estimated 52 million head, down from 61 million in 1977.

The downturn in the Argentine cattle sector is due largely to the change in Europe's position from a major importer of Argentine beef to a major competitor in world beef markets. Beginning in the mid-seventies, Europe has limited beef imports, and in recent years has subsidized export sales of intervention stocks.

In addition, the cattle sector has been adversely affected as higher returns for field crops encouraged switching pastures into crops. Rising crop yields improved returns to field crops, causing loss of productivity in the beef sector when herds were relocated to marginal regions.

During 1985/86 (July/June), 13.6 million head were slaughtered, 10 percent above a year earlier. Per capita consumption increased following a 31-percent decline in prices. Slaughter rates through mid-1986 appeared to be the same as 1985. However, lower average weights and a high heifer slaughter rate have reduced supplies in 1986.

The outlook for Argentina's beef sector is unclear. Lower supplies may be a seasonal pattern or may reflect flooding in western Buenos Aires province in November 1985, resulting in additional slaughter and reduced availability of finished cattle. On the other hand, reduced supplies may indicate that the retention phase of the cycle is beginning because of the poor outlook for crop prices over the next 2 years. Export demand has also recovered somewhat, especially in the European market for choice cuts.

Per capita meat consumption, 1985

Country	Beef	Sheep	Pork	Poultry	Total
	Kilograms per capita				
Argentina	82.7	2.8	6.2	10.3	102.0
Brazil	10.3	NA	3.5	6.5	20.3
Canada	41.3	.8	28.9	25.3	96.3
EC-12	23.3	3.6	36.9	15.7	79.5
U.S.	49.8	NA	29.6	31.5	110.1
Peru	5.6	1.5	2.9	10.1	20.1

NA = not available. Source: FAO.

Beef exports in 1986 are forecast at 220 million tons, down slightly from a year ago but only about half of 1970's. A main factor limiting export expansion will be domestic demand, accounting for 90 percent of production. Meat substitutes are few, so the demand for beef is inelastic. Beef consumption is high compared with other beef-producing countries.

Brazilian Meat Demand Interrupts Exports

Demand for meat in Brazil increased in 1985 and is even stronger in 1986. Demand has been partially frustrated by limited supplies, especially of beef, despite large cattle herds. Economic factors have combined with the normal reduction in slaughter associated with the dry season.

As strong domestic demand has claimed more supplies, meat available for export has declined. The seasonal nature of beef supplies has resulted in shortages of beef, and the Government has responded by importing massive supplies from the United States and the EC. These imports are controversial, because Brazil has been one of the world's largest beef exporters.

In March 1986, the Government froze prices as part of an anti-inflation reform, but beef prices were frozen at a low part of the price cycle. By June and July, beef had disappeared from store shelves. The economic reforms also made investment in agriculture more attractive, so resources that had previously been devoted to financial investments that profited from high inflation became available to expand livestock operations. This meant even fewer cattle going to slaughter. The strong economy increased the demand for meat just as the supply dried up. The Government responded by purchasing, at bargain prices, the beef stocks that the United States and EC needed to dispose of.

As beef became unavailable, consumption of pork and poultry rose, reducing their availability for export and encouraging increased production. Rising poultry and pork production has raised demand for corn and soybean meal.

Andean Poultry and Pork Output Rise

In the Andean region, poultry and pork production are the leading users of imported feeds. Poultry production is rising because growing demand is strengthening producer prices. Poultry and feed imports by Colombia and Peru are increasing, but this has not translated into increased U.S. feed or poultry exports. Colombia has met its poultry needs with contraband poultry imports from Venezuela. To alleviate shortages that occurred earlier in 1986, Peru lowered its surtax on poultry imports, but imported meat from Brazil and Chile.

Other countries in the region are limiting imports of feed ingredients. Chile's fishmeal exports rank second after copper, and output of oilseed meals is also increasing. Venezuela is producing another bumper corn crop, albeit mostly for food. Since Venezuela also has limited foreign exchange, it may be cutting back on oilseed meal and sorghum imports in the near future.

In June, the Venezuelan Government restricted soybean meal imports by taking soybean meal off the list of preferential commodities and placing it on the list of commodities to be purchased with free-market dollars (a higher exchange rate). By mid-June, Venezuela had purchased 460,000 tons of soybean meal, after a flurry of purchases made to beat the cutoff date.

Other developments in the Andean livestock sector include:

- The Colombian cattle industry is switching from beef to dairy, because of crime on remote cattle ranches, the slowdown of contraband live cattle exports to Venezuela, and the increased consumption of milk. The rising interest in dairying has made Colombia a large participant in the USDA dairy buy-out program. During January-July, the Government of Colombia issued import permits for 1,700 head of U.S. cattle---mostly Jerseys and Holsteins. Import permits are expected to reach 3,800 head, with 3,000 from the United States.

- Chile may be considering beef as a nontraditional export in its effort to seek new export opportunities. Chile has also extended its 15-percent surtax on dairy product imports to March 1987 to protect its high producer prices.

- Ecuador's dairy industry is also flourishing, and beef and pork production have increased during 1986. *[Carol Goodloe (202) 786-1663]*

Western Europe

The important feed and livestock developments in Western Europe arise from policy issues and the grain and oilseed situations, because the market for commercial feed is growing slowly. However, the current outlook for U.S. soybean exports to the EC is mixed, even though estimates for Western European grain crops continue downward and U.S. soybean prices have become more competitive.

As a consequence of an interim agreement in July between the EC and the United States, U.S. corn shipments may recover some of their initial losses resulting from Spanish accession to the EC. The agreement provides a 6-month truce for outstanding farm trade issues plaguing relations between the two sides.

U.S. Exports Hinge on Policy and Weather

This year's EC grain crop is estimated to be about 6 percent below last year's, because of drought in France, Spain, and West Germany. EC-12 grain production of about 151 million tons would still leave ample supplies for domestic use and export, and reduce the stock overhang only moderately.

Regions of France, West Germany, and Spain where farmers have been feeding grain from their own crop could import soybean meal this year to supplement their drought-reduced grain quantities. This is most likely in areas where distribution and marketing systems for grain imports are limited, and which have been severely affected by the drought. With total grain fed forecast to decline 560,000 tons to 88.6 million, soybean meal use could grow around

350,000 tons. Reduced pasture and forage could even boost demand for soybean meal above that necessary to replace grains.

Several factors, however, are holding down the potential for U.S. sales. EC livestock numbers indicate decline in the domestic market for feedstuffs. Forecast total livestock units (that is, all farm animals raised for food, summed on the basis of feed equivalents) for the EC-12 in calendar 1987 are down 1.6 percent from 1982. Declines in 1985-1987 offset some growth in the previous 2 years. The declines were mainly in cattle, primarily dairy cows, being reduced as part of policies aimed at limiting the EC's dairy surplus.

The addition of Spain and Portugal to the EC substantially enlarges the internal market for feedstuffs, but the two newcomers will mostly benefit the original EC, with its current large surpluses of grains. Also, rising EC-12 oilseed production--growing from 6.3 to 7.1 million tons between 1984/85 and 1985/86, but about constant in fiscal 1986/87--works against imports.

All oilseed crops (sunflowerseed, soybean, rapeseed) increased, with most of the gain coming in France, West Germany, and Italy. At the same time, a glut of oil on world markets is depressing crushing margins for EC oilseed-processing plants. If Brazilian soybean production recovers this season, the U.S. market share may shrink.

Tentative Progress in Trade Talks

The EC's recent expansion has intensified its budgetary concerns, in part because enlargement may increase the need for outlays for stocks and farm export subsidies. As costly as those programs are, the EC finds itself with no alternative presently, as it attempts both to accommodate the interests of its now substantial Mediterranean tier, and to maintain or expand the trade preferences it allows some non-EC Mediterranean producers competing with its own southern farmers.

Large supplies of crops in world markets are putting additional pressures on the EC. Forecast EC grain exports are down slightly from last year, at 15 million tons of wheat and 6.5 million of coarse grains. A pickup in intra-EC trade because of extra wheat and barley exports to Spain and Portugal will compensate for EC losses on third-country markets.

However, the shift toward intra-EC trade reduces potential U.S. exports to Spain. U.S. complaints growing out of the enlargement resulted in a March 31 U.S. announcement of possible quota and tariff measures to be taken against specified EC imports (including certain cheeses, fruit and vegetable products, and alcoholic beverages). The EC responded by targeting certain U.S. products for retaliation, including soybean meal, corn gluten feed, and almonds (see the July 1986 *Agricultural Outlook* for details).

A deadlock in EC-U.S. talks ensued, the EC arguing that compensation in the industrial sector would be adequate, and the United States arguing for compensation within agricultural trade. The two sides, both wanting to avoid a major trade confrontation at GATT negotiations, managed to achieve an interim settlement as of July 2. Under it, the EC will monitor imports of corn and some other feedstuffs for the period July 1 to December 31, 1986. If Spanish imports of these feedstuffs fall below a monthly average of 234,000 tons, the EC (excluding Portugal) will permit imports equivalent to the shortfall under a reduced levy quota.

Following the July accord, a "citrus agreement" was reached on August 11. The United States is to be granted a quota for extra-quality orange exports to the EC, as well as for almonds, while U.S. tariffs on olive oil and certain cheese imports are to be reduced.

Within the same arrangement, the United States eliminated an extra duty it had imposed on pasta imports from the EC on November 1, 1985, and the EC removed its November 4 duty increase on U.S. lemons and walnuts. However, permanent settlement of the EC-U.S. dispute over subsidized EC pasta exports has yet to be achieved, and if one is not reached by the targeted July 1, 1987 deadline, the entire "citrus agreement" could be in jeopardy. *[Lorna Aldrich, Stephen Hiemstra, Miles Lambert, and Stephen Sposato (202) 786-1717]*

USSR

Due to lower grain production, the Soviet Union's agricultural production for 1986 is expected to be the lowest since 1982, according to ERS production indices. Improvements in the livestock sector are not expected to offset the effect of the reduced harvest. Grain area is estimated to be down more than 1 million hectares from last year. In addition, hot, dry weather in major grain-producing areas has stressed the crop. While the quality of some grains could be higher than usual, the grain harvest is forecast at 175 million tons, 15 million less than last year.

As an incentive to grain producers, the State Agro-industrial Committee (Gosagroprom) announced a program offering, to these farms that overfulfill grain procurement plans, the right to buy trucks, tractors, and other farm inputs. It is doubtful that this bonus system will affect grain production this year, since it was announced late in the season, but state procurements may rise.

Nongrain feed production will match or better last year's record. Dry weather in the western USSR grain regions may have caused diversion of grain to forage. Corn silage production is running at a record pace, and the hay and haylage output is expected to be good.

The livestock sector's performance mirrors the success of the nongrain feed sector. Livestock inventories on state and collective farms are running near or at record levels, except for poultry. The first half of 1986 has shown significant performance gains in this sector, reflecting an emphasis on raising output per head. Better productivity will likely result in a modest increase in milk, meat, and egg production.

Imports To Continue Decline in 1986

Soviet agricultural imports in 1986 will continue the decline of the past 2 years. Soviet official trade figures for calendar 1985 confirm ERS estimates that show total Soviet agricultural imports at $17.7 billion, down more than $1 billion from 1984. Shrinkage in grain trade, due to falling prices and lower Soviet grain imports, accounts for the continuing decline.

Soviet grain import requirements this calendar year are expected to drop to two-thirds of 1985's quantity, due in part to higher output of nongrain feed crops. The Soviets will probably draw down existing grain stocks that were built up following the better-than-average 1985 crop, instead of relying totally on imports to make up for this year's shortfall.

The Soviets face a serious hard currency constraint due to the drop in the price of oil, a major hard currency earner. With an estimated 25-percent drop in hard currency earnings this year, the Soviets will limit their agricultural imports from the West.

In July, the Soviets notified grain exporters of stiffer conditions for grain purchases. According to the new conditions, the Soviets would reserve the right to reject grain or charge a penalty if it does not meet contractual requirements. The seller would be responsible for fumigation or removal of the grain from the port if the Soviets rejected the shipment. In addition, the Soviets are demanding a 30-day grace period on payments for grain shipments. The stricter import requirements indicate that the Soviets are attempting to reduce problems with grain quality that they have complained about in the past. *[Carolyn E. Duff (202) 786-1710]*

Eastern Europe

Grain production is expected to be above average for the fifth straight year. In the southern countries (Bulgaria, Romania, and Yugoslavia), after suffering a severe drought in 1985, production of grains and oilseeds rebounded substantially in 1986. Total oilseed production in the region is likely to reach an alltime high in 1986. Overall livestock inventories continued their decline this year, but are expected to begin rebuilding in 1987. U.S. farm exports to Eastern Europe are forecast to fall slightly further in 1986.

Grain Production Second Largest

Grain production in 1986 could reach 110-112 million tons, second only to the 1984 record. Regional wheat production is estimated at nearly 40 million tons, its second best showing, while coarse grain output will remain largely unchanged from 1985.

Poland will produce a record crop this year, and output--particularly of corn--in Bulgaria, Romania, and Yugoslavia, will rise markedly following serious drought in 1985. After four successive record crops in the German Democratic Republic, production will be down slightly because of dry, hot weather. Similar weather conditions will reduce the Czechoslovakia harvest as well. Grain production in Hungary will decline over 10 percent; corn especially will suffer, as the country has experienced its worst drought in nearly a decade.

Record Oilseed Production

Total 1986 oilseed production in the region is estimated at close to 5 million tons, an alltime high, and about 10 percent larger than last year's drought-damaged crop. Rapeseed production is projected to be up markedly from 1985 and a record high. Poland, which harvested its largest rapeseed crop ever this year, is primarily responsible.

Substantially increased production of sunflowerseed in Bulgaria, Romania, and Yugoslavia largely accounts for a forecast 15-percent rise in output for the region, which, if achieved, will be a record. Soybean production will also rebound, up more than 20 percent from 1985, due again to a recovery by the same three major producers.

Livestock Sector Bottoms Out

Overall cattle and hog numbers continued their 2-year decline in 1986, albeit at a slower rate. On the other hand, sheep inventories should show a slight increase this year, in contrast to a sharp decline in 1985. Poultry flocks, one of the brighter spots, are projected to rise about 2 percent.

The region's livestock sector, having suffered a harsh winter, energy shortages, drought-reduced feed supplies in the southern countries, and rising production costs in 1985, is facing another difficult year in 1986. Continuing inadequate imports of high-protein feed components, poor export performance, high input costs, and low profitability have caused further setbacks.

To provide relief to breeders, increase incentives, and halt the costly decline in animal stocks, most East European countries increased producer livestock prices and subsidies for farm construction, and extended tax concessions in 1986. These measures are proving only partially successful so far, and are to be continued in 1987.

The outlook for next year is for a modest recovery in the sector, with herds beginning to stabilize and gradually move upward. Overall meat production has remained unchanged again in 1986 at roughly 12 million tons, but since the major culling of herds is over and rebuilding of stocks is now beginning, slaughter numbers are forecast to decline slightly in 1987.

U.S. Exports Continue To Decline

The value of U.S. farm exports to Eastern Europe is forecast to decline marginally in 1986, after falling a dramatic 37 percent to $479 million in calendar 1985. While the volume of U.S. grain exports will be substantially larger this year, in response to the southern countries' poor 1985 crop year, the total value of exports will be down due to falling grain prices and a significant drop in animal product sales. U.S. soybean exports may be up slightly , following crop shortfalls last year, but soybean meal sales are expected to remain low because of reduced livestock numbers and competition from Latin American suppliers. *[Christian J. Foster (202) 786-1710]*

Australia

Low world grain and oilseed prices are encouraging more livestock feeding in Australia. Grain use for feed may increase a tenth in 1986/87, following a 5-percent gain this year. Production of lupins and other legumes for livestock feed is rising rapidly.

Most of the 3 million tons of grain fed to livestock is used in the poultry and hog industries. Sheep, beef cattle, and dairy cattle are largely range-fed, often on improved pastures in rotation with crop stubble. At the end of May 1986, 230,000 head of cattle were in feedlots, up from 140,000 a year earlier, reflecting the dry summer in many beef regions and a greater acceptance of intensive feeding.

Cattle slaughter was up 8 percent in January-July 1986, largely because of dry

Australian agricultural production

Item	1983/ 84	1984/ 85	1985/ 86	1986/ 87 F
	Thousand metric tons			
Crops				
Wheat	22,016	18,666	16,050	15,400
Barley	4,890	5,554	4,913	3,700
Oats	2,296	1,367	1,339	1,750
Sorghum	1,885	1,369	1,250	1,300
Oilseeds				
Winter	52	70	126	100
Summer	306	445	359	390
Lupins & field peas	516	748	707	1,100
Cotton	141	249	253	180
Livestock prod.				
Milk	6,087	6,217	6,200	6,200
Wool 1/	732	814	815	833
Meat 2/				
Beef and veal	1,248	1,338	1,380	1,390
Lamb	273	317	310	280
Mutton	177	235	260	290
Pork	256	263	268	270
Poultry meat	297	345	365	385

F = forecast. 1/ Greasy equivalent. 2/ Meats on 1984-87 calendar years, 1986-87 forecast.

pastures. Slaughter rates in the last 5 months should be slightly below year-earlier levels as producers build herds. Slaughter is expected to remain near 7.3 million head in 1987.

Lamb slaughter rose 0.7 percent and sheep slaughter 20 in the first 7 months of 1986; but the pace is expected to slow in the second half. Lamb slaughter will decline in 1987 because sheep growers are emphasizing wool at the expense of prime lamb production.

The Australian hog industry has suffered from poor returns for several years. Earlier losses, together with current high capital costs and interest rates, are preventing most producers from expanding operations in response to low feed prices. However, poultry meat production may increase 5 to 6 percent in both 1986 and 1987.

Crop Prospects Improve

Winter rains improved prospects for grain and oilseed crops in most growing areas. Parts of Queensland remained dry. Area planted to oats is up about 37 percent, but other winter grain is down about 7 percent. Depending on spring rains, yields may be somewhat above average. Winter oilseed area and production are estimated down a fifth. Lupins area is up about 28 percent, and yields should recover from last year's harvest.

Wheat Exports Record Large

Wheat exports are expected to reach a record 16 million tons in the 1985/86 marketing year, up from 15.3 million a year earlier. Exports include 3.2 million tons shipped to the USSR, 2.1 million to Egypt, and 1.9 million to China. With reduced supplies, 1986/87 exports will likely decline to 14.5 to 15 million tons. *[Sally Byrne (202) 786-1611]*

Japan

Outlook for Livestock Sector Mixed

Japan's beef and veal production in 1986 is estimated at 545,000 tons, a 2-percent decline from 1985. Reduced supplies due to heavy slaughter of Wagyu cattle (the native breed) last year have been partially offset by an increase in dairy cattle slaughter. In response to declining milk prices, in June, the Ministry of Agriculture, Forestry, and Fisheries (MAFF) initiated a program to cut milk production 3 percent by culling milk cows. The program is to run through March 1987.

After growing 8 percent in 1985, pork output is expected to decline 2 percent this year to 1.5 million tons. Deteriorating market hog prices prompted producers to increase the culling of sows in late 1985, causing a reduction in hog slaughter this year. Broiler output is forecast to increase only marginally in 1986, despite cheaper feed prices and stable demand. To shore up declining prices, broiler producers apparently are marketing fewer birds. In contrast, egg production is projected to grow about 2 percent from last year. Because of lower feed costs and the large government budget deficit, MAFF decided to reduce producer support prices for pork, dairy beef, and milk for processing this fiscal year.

Beef and Poultry Imports Up

Japan's beef and veal imports in 1986 are projected to increase about 5 percent to 158,000 tons (product weight), in accordance with the 1984 U.S.-Japan understanding on beef, which called for a 9,000-ton annual increase in beef import quotas through March 1988. The U.S. share of beef imports could

increase to 35 percent from 31 last year, as a result of Japan's commitment to expand grain-fed beef imports 6,900 tons yearly.

Pork imports during the first half of the year were about 16 percent ahead of a year earlier, and for all of 1986 could exceed last year's high of 190,000 tons. However, the U.S. share is unlikely to improve much because of continued strong competition from Taiwanese pork.

Japan's poultry meat imports could increase 20 percent or more this year, boosted by the stronger yen and only slight gains in domestic outturn. The United States has gained some market share due to less competition from Brazil. Because of a temporary domestic shortage of beef, Brazilians are consuming more chicken, reducing available supplies for export. At the same time, Japanese imports of boneless chicken meat from Thailand have continued to increase, encouraged by the stronger yen and the lower tariff on boneless chicken, recently reduced from 18 percent to 14.

Retail Meat Prices Decline

A decline in retail prices has spurred greater consumption of pork and poultry meat. In addition, to pass on exchange rate gains to consumers, MAFF has instructed the Livestock Industry Promotion Corporation (LIPC), which controls the purchase and sale of domestic and imported beef, to lower its resale prices for imported beef 12.5 percent. However, retail price reductions are unlikely to match this. Because of the price support schemes in effect for beef and dairy products, retail price declines have not fully reflected the reductions in import prices resulting from the appreciation of the yen.

Livestock Profits Continue To Rise

Stable producer prices and declining feed prices have improved profit margins for livestock producers since May 1985. Because of the higher-valued yen and lower world prices for grains and oilseeds, Zennoh--Japan's largest feed manufacturer--has successively reduced feed prices. Prices for July-December 1986 deliveries were recently cut to 56,300 yen per ton ($363 at 155 yen/dollar) 15 percent below a year earlier. Lower feed prices have

Japan's Livestock Product/Feed Price Ratio Rising

encouraged slightly greater consumption of mixed feed. *[Lois Caplan (202) 786-1610]*

Middle-Income East Asia
(South Korea, Taiwan, Hong Kong)

Economic growth in the region is expected to accelerate this year as currency realignments enhance the region's competitiveness in Japan, Europe, and the United States. The value of U.S. farm exports to the region, however, is forecast to drop about 9 percent in fiscal 1986 to $2.8 billion. The decrease is mainly attributed to lower commodity prices and sharply reduced cotton and coarse grain exports, which are more than offsetting gains in sales of cattle hides and soybeans. In fiscal 1987, despite expected lower prices of most bulk commodities, substantially increased shipments of coarse grain and cotton will increase the value slightly.

U.S. Exports Drop in Value

Expanding livestock production and limited domestic feed supplies have made the region a large U.S. market for coarse grain and soybeans. Except for Hong Kong, which imports mostly finished livestock products, South Korea and Taiwan have large domestic livestock industries that depend heavily on imported feedstuffs. Since 1985, large livestock inventories and low feed costs have kept the region's import demand for coarse grain and soybeans relatively strong.

However, U.S. coarse grain has faced stepped-up competition from South African corn and surplus indigenous rice in the Taiwanese market, and from Thai coarse grain and Australian and Canadian feed wheat in the South Korean market. PRC corn exports to the Korean market are less of a factor this year, dropping from 1.5 million tons in fiscal 1985 to an estimated 900,000 this year. The total value of U.S. coarse grain and soybean exports to the region, forecast to drop about 7 percent from fiscal 1985's $651 million, should increase in the next fiscal year.

Taiwan's Pork Output and Exports Rise

After an unprofitable year in 1985, Taiwan's hog industry--the country's largest livestock industry--is bouncing back. Pork exports, mainly to Japan, rose 28 percent to 37,105 tons during the first half of 1986 compared with a year earlier. Strong export performance and farmers' speculative holdings pushed hog prices up more than 50 percent. A strong yen, and Japan's concern about Chernobyl's effects on European meat, will help keep Taiwan's 1986 pork exports above last year's record 67,046 tons. Hog numbers are expected to remain at last year's record 6.7 million head.

South Korean Cattle Herd Growth Slows

During 1982-84, the Government implemented various measures to expand domestic beef and milk production. These measures included making subsidized credit available for cattle purchases, importing breeding stock, making it illegal to slaughter female cattle under 6 years of age, and requiring a minimum weight of 400 kilograms for all slaughter cattle. Beef imports were also accelerated in 1982-83 to accommodate rising demand and to allow inventories to continue on an expansionary path.

The nation's cattle inventory rose from 1.5 million head in 1982 to 2.7 million in 1985. Cattle prices began to decline in 1984. The Government then began to purchase slaughter and younger cattle for retention on cooperative farms, suspend beef and cattle imports, bar the release of imported beef from stocks, and lift restrictions on sex, age, and slaughter weight. These efforts have helped stabilize prices in 1986. *[Sophia Wu Huang (202) 786-1611]*

China

China's livestock industry continued to grow at a fast pace in the first half of this year, despite local reports of higher feed costs and lower meat prices. A bumper summer harvest may have improved the feed grain situation in northern and central China, but shortages will continue in southern China, where imports have been far below requirements. A shortage of foreign exchange continues to limit feed grain imports. Growth of the livestock and product sector should slow for the rest of the decade.

Growth Continued in First-Half 1986

Following rapid growth in the livestock and product sector in 1984 and 1985, red meat production, including pork, beef, and mutton, totaled 8.87 million tons for the first 6 months of this year, 15.6 percent above a year earlier. Hog slaughter, which contributes more than 90 percent of total red meat output, reached 125 million head, up 12.9 percent from first-half 1985. Milk production totaled 1.18 million tons, up 16.2 percent. Inventories of hogs and large animals, including cattle, have all grown in the first 6 months of this year.

Higher feed prices, combined with lower product prices brought on by increased marketings of live animals, particularly hogs and poultry, caused noticeable cost-price squeezes in some local livestock raising areas during first-half 1986. There are, however, some indications that the problem may improve during the second half of this year. First, feed prices have started declining in several hog-producing provinces where bumper summer harvests have been reported. Second, hog and piglet prices have rebounded recently, and third, the government procurement system apparently has been successful in coordinating orderly hog purchases in areas with surplus slaughter hogs.

Slower Growth Expected in the Long Run

Despite continued rapid growth, China's livestock sector experiences increasing adjustment problems. Elimination of fixed procurement and retail prices for livestock products, and the decline in growth of grain output, have already resulted in a cost-price squeeze in 1986. Feed manufacturing in the

next several years is expected to grow more slowly because of slower growth in grain output.

With the limited supply of manufactured feed and feed grains, partly caused by the export commitments of coarse grains to the USSR and Japan, together with the tight foreign exchange situation, China's livestock and product production will return to a modest growth rate, particularly in the south. China's seventh 5-year plan also implies that total meat production will grow only 3.7 percent annually for the 5-year period (1986-1990), with milk and eggs growing faster at annual rates of 16 and 10.5 percent, respectively. *[Francis Tuan (202) 786-1616]*

South Asia

Poultry Sectors Expand Rapidly

Strengthening consumer demand is contributing to rapid expansion of commercial poultry and egg production in Pakistan and India. In Pakistan, production of poultry meat and eggs has grown 17 percent and 15 percent, respectively, since 1980. India's production of poultry meat and eggs both grew about 7 percent annually.

Overall meat consumption remains very low in both countries, and mutton and beef still account for most of the meat consumed. However, commercial poultry production is now the fastest-growing sector in both countries, because of consumer preferences, growth in per capita incomes, and high profitability. Commercial producers in Pakistan have also benefited from government tax and credit incentives.

Commercial production of feeds has also grown rapidly in both countries, but the poor quality of domestic feedstuffs is a key constraint to higher growth and improved efficiency in poultry operations. Pakistan has imported small amounts of soybean meal for poultry rations, and limited domestic capacity to produce oilmeals may lead to larger imports in the future. However, India is a traditional exporter of oilmeals, with broad scope to expand domestic production.

Livestock Sectors Grow More Slowly

Production of beef and mutton in Pakistan has grown about 6 percent annually since 1980, while Indian production has grown 2 to 3. In both countries, growth has been slower than in the poultry sector, in part because of comparatively low profitability and the high investment required to establish operations on a commercial scale. Domestic forages account for virtually all feed used in beef and mutton production in both countries. India has attempted to expand its exports of beef in recent years, primarily to Middle Eastern markets, with exports between 30,000 and 60,000 tons since 1980.

India Emphasizes Dairy Development

Dairy production has been the main focus of India's livestock development efforts, with dairying benefiting from government and foreign donor investment under the Operation Flood program. Key elements of the program are organization of vertically integrated, farmer-owned milk production and marketing cooperatives, and the establishment of a "national milk grid" (distribution network) to facilitate distribution of milk from surplus to deficit areas. Milk production has expanded steadily since the early 1970's, growing at an annual rate of nearly 6 percent since 1980. Improved domestic production of fluid and dry milk has reduced requirements for donated supplies of dry milk to meet lean-season demand in urban areas. *[Maurice R. Landes (202) 786-1614]*

Southeast Asia

Indonesia Makes Milk Powder

Indonesia's first milk powdering plant began operating in 1985. It has helped absorb surplus fresh milk supplies and reduced powdered milk imports. Processing capacity is 120,000 liters per day, with an estimated output of 5,000 tons of milk powder annually. A U.S. agricultural cooperative recently agreed, in a joint venture, to supply dairy cattle to Indonesia for its Nucleus Estate and Smallholders project. This will supply additional fresh milk to the powdering plant. The co-op will also provide technical assistance in managing the dairy herds.

Malaysia Self-Sufficient in Poultry

Malaysia, which remains self-sufficient in poultry and pork production, produces less than half its beef and mutton, and has a limited government sponsored and subsidized smallholder dairy sector. The poultry sector has experienced sustained growth, with further gains anticipated based on population growth and rising real incomes. However, long-term growth in the pork sector is more uncertain due to ecological and religious concerns. The Government is reducing beef imports 15 percent in 1986 to protect the domestic beef industry. Imported corn, estimated at 1.2 million tons in 1985/86, mainly from Thailand, constitutes the major energy source in the estimated 1.5-million-ton output of mixed feed.

Philippines' Livestock Sector Depressed

The Philippine economic crisis continues to take its toll on livestock and poultry raisers. Depressed consumer demand, high interest rates, and rising costs are forcing small scale producers to close or sell out to large operators. The Aquino administration's dismantling of the livestock and soybean meal trading monopolies gives producers greater control over their costs and broadens opportunities for U.S. suppliers of breeding stock, particularly cattle. Feed grain supplies, however, are restricted by an import ban, imposed in January 1986, in an effort to raise farmgate prices for corn and attain feed grain self-sufficiency. Subsequent imports of feed wheat were checked in June 1986 by reinstituting import licenses for feed grain substitutes.

Thailand Doing Brisk Export Business

Thailand's exports of broiler meat, primarily to Japan, are expected to reach 84,000 tons, up 71 percent from 1985. The yen appreciation, along with lowered Japanese import tariffs on boneless poultry meat, and reduced Brazilian exports, have worked to Thailand's advantage. Thailand continues to export poultry meat to Singapore and Hong Kong and is beginning to penetrate markets in the European Community and the Philippines. Low-cost feed and rising domestic prices are encouraging poultry and hog production. Pork exports are now negligible, but rapid modernization of production and processing may allow Thailand to become a significant competitor for Asian markets within the next 5 years. *[Jitendar S. Mann (202) 786-1614]*

The Middle East and North Africa

Meat Consumption Rising Steadily

Meat consumption patterns in the Middle East and North Africa have been changing in recent years. The average diet continues to improve despite financial problems from lower petroleum revenues. Pressure on governments to reduce food subsidies has met strong resistance, and the quantity of essential foods distributed through subsidized programs has increased rather than declined. In this setting, lower world prices for frozen beef and poultry imported from Latin America and the EC have provided a welcome relief for countries concerned about prices, subsidy costs, and their balance of payments.

The region's per capita consumption of beef and poultry has increased moderately in the last 3 years, pushing total meat consumption to nearly 5 million tons. Chicken accounts for nearly half of per capita meat consumption of 19 kilograms, compared with a third in the late 1970's.

Meat Output Expanding Slowly

Despite the spectacular gains for broiler output in Saudi Arabia, Iraq, and some of the Gulf countries, the region's meat output is growing at a slower pace than forecast several years ago, and in many countries, population is outstripping output of red meat. Local meat output is being encouraged through greater use of subsidized, imported feed and through policy changes favoring domestic supplies. However, gains in beef and mutton production have been difficult because of inadequate forage and irregular feed imports, as well as unreliable in-country distribution. For example, shortages of feed have slowed beef output in Egypt, Lebanon, and Iran.

On the other hand, poultry output has done well in countries where producer subsidies encouraged rapid production gains. In 1985, production in Saudi Arabia rose to about 225,000 tons, four times the 1981 level. Iraq's output rose more than 50 percent to about 236,000 tons between 1983 and 1985,

following a 41-percent rise in the procurement price to $4.19 per kilo. The setting in these countries is more conducive to poultry farming than to raising beef cattle, because broiler operators can raise their chickens in about 2 months and leave their facilities vacant during the very hot summer.

Despite the rhetoric about meat self-sufficiency, lower world meat prices and local obstacles in organizing commercial feedlots and feed distribution systems led governments to take advantage of the lower international prices. As a result, feed grain imports--which had increased sharply in recent years and peaked at 13 million tons in 1984--declined in 1985. Governments also had concerns about the port congestion created by such large shipments. Saudi Arabia, in particular, cut purchases; its barley imports declined a fourth to 4.5 million tons.

Beef and Poultry Imports Rose

About a third of the region's total meat supply was imported during 1983-85. In 1985, imports reached a record 1.7 million tons, valued near $2.5 billion. Beef imports doubled between 1980 and 1985, as the import price declined 40 percent. Poultry imports peaked in 1981 and 1982, declined as oil revenues fell and domestic output grew, and increased again in 1985 in response to a steep decline in poultry prices.

Lower prices for EC beef, related to sales of dairy cattle, attracted the attention of most countries in the region. The price for EC beef to the Mideast and North Africa declined steadily from $1,464 per ton in 1980 to $1,094 in 1984. In 1985, the EC sent 344,000 tons of beef to the Mideast and North Africa for $408 million. This was nearly triple the volume exported to the region in 1982, 127,905 tons for $157 million. The EC market share rose from 33 percent in 1983 to 55 percent in 1984, and the community remained the leader in 1985, with 51 percent of the 667,000 tons imported.

In 1985, Egypt was the top external market for EC beef, taking 156,214 tons for $157.8 million, or only $1,008 per ton. Other important markets were Saudi Arabia and Iraq, each buying over 34,000 tons, and Iran, a customer for 28,465 tons. Algeria was the fifth major customer in the region, buying 19,082 tons, and Libya was sixth, taking 13,759.

Despite an increasingly competitive environment, it has been easier for the EC to boost its share of beef imports in countries, such as Saudi Arabia, Kuwait, and the UAE, where previous countertrade agreements were not important. In the Saudi market, the EC once held only a 20-percent share, but that rose to 60 percent in 1985. Iran and Iraq have countertrade arrangements with Brazil and Argentina, swapping oil for beef.

In addition, as the EC's output of mutton rose and its imports declined, traditional mutton suppliers such as Australia and New Zealand sought new markets, including the Middle East. Major gains were made in the late 1970's, as New Zealand mutton sales increased to Iran and the Arabian Peninsula. However, the market showed little further gain in the 1980's, because of lower prices for beef and poultry. In 1985, Iran was the top market for New Zealand's mutton, buying 184,000 tons, about four times more than the Arabian Peninsula. Australia continues to ship about 3 million sheep to the region, two-thirds to Saudi Arabia.

Poultry Imports Rebound

Regional imports of frozen chicken rebounded from 535,000 tons in 1984 to about 580,000 in 1985, a response to lower import prices. In 1986, the region will produce about 80 percent of its poultry meat requirements, but imports will not diminish because poultry continues to be priced very attractively, marketing channels continue to improve, and both per capita and total consumption keep rising.

In 1985, Brazil--which has been the principal supplier--sent 85 percent of its total frozen chicken exports of 277,000 tons to the region, including 85,000 to Saudi Arabia and 50,000 to Egypt. Brazil's $800-per-ton price prompted record imports by Qatar, Oman, and Bahrain. Iraq bought 65,000 tons, despite gains in domestic output.

EC exports of frozen chickens to the region declined slightly in 1985 to 204,000 tons, including 97,600 to Saudi Arabia, which had purchased 114,000 in 1984. Also, smaller sales to Iran and Egypt contributed to the

decline. U.S. sales of 43,000 tons of frozen poultry through the EEP to Egypt in fiscal 1986 quadrupled the previous year's sales. For 1987, Egypt is seeking even larger quantities.

Meat Imports To Rise in 1986

In 1986, total regional imports of beef may exceed 700,000 tons, including about 200,000 by Egypt. The EC is again expected to capture half the market. Shortages of beef for export from Brazil might open an opportunity for U.S. beef sales to Egypt and Iraq, especially through the EEP. *[John B. Parker (202) 786-1680]*

WORLD TRADE AND FOOD POLICY

Agriculture and Trade Round Opening

Trade ministers, from 74 countries, that met September 15–20 in Punta del Este, Uruguay, decided to launch new multilateral trade negotiations (MTN), to begin not later than October 31, 1986. In a special session of contracting parties to the General Agreement on Tariffs and Trade (GATT), the ministers declared that negotiations, to be concluded within 4 years, shall aim to:

(1) bring about world trade liberalization--especially for developing countries--by reducing and eliminating tariff and other trade barriers;

(2) strengthen the rules of the world trading system through more effective multilateral discipline and widened trade coverage under the GATT;

(3) improve the trading system by taking into account changing world trade patterns to include such subjects as high-technology products and the difficulties in commodity markets; and

(4) foster more cooperative interaction between governments' trade, monetary, and economic policies affecting world growth and development.

U.S. negotiators sought to bring several priority issues into the negotiations, one of which was agriculture. The declaration indicates negotiations will take place to expand GATT disciplines more fully to trade in agriculture.

The text on agriculture notes the need to correct and prevent restrictions and distortions in agricultural trade, including those related to structural surpluses, to reduce imbalances in world agricultural markets. The declaration further indicates that GATT members seek to liberalize agricultural trade and bring all measures affecting import access and export competition under strengthened and more effective GATT rules and disciplines.

The declaration cites that this will be done, taking into account general principles of the negotiations prefaced in the declaration, through:

(1) improving market access through the reduction of import barriers;

(2) improving the competitive environment by increasing discipline on the use of all direct and indirect subsidies and other measures affecting directly or indirectly agricultural trade, including the phased reduction of their negative effects and dealing with their causes; and

(3) minimizing the adverse effects of sanitary and health-related regulations in agriculture.

US-EC Accord on Enlargement

On July 2, the United States and the EC reached a provisional agreement that forestalled increased U.S. tariffs on EC agricultural imports in retaliation for the withdrawal of tariff bindings on U.S. corn and sorghum imports into Spain. This provisional agreement is intended to ensure the continued flow of U.S. corn and sorghum to Spain. A deadline of December 31, 1986 has been set for completion of negotiations for the compensation owed to the United States as a result of the entry of Spain and Portugal into the EC.

The EC agreed to monitor certain Spanish grain imports during 1986 to ensure that imports of U.S. corn and sorghum (as well as several other feed products) do not fall below 234,000 tons per month. If they do fall below this level, the shortfall will be made up with a

reduced-levy quota, the details of which have not yet been agreed upon.

The United States and the EC have furthermore reached a separate agreement to resolve their dispute involving access for U.S. citrus exports, which will allow the United States to reduce its increased tariffs on imports of EC pasta, as part of the accord.

U.S.-Japan Farm Quota Dispute

On July 14, the United States announced it would request the GATT to determine whether Japanese quotas on imports of 12 agricultural products are consistent with the General Agreement. The quotas cover high-value agricultural products such as fruit purees, pulp, and juices, tomato sauces, peanuts, prepared beef products, certain processed milk and cream, processed cheese, certain dried beans, starches, certain sugars, and other food preparations.

In 1984, the United States reached a 2-year interim agreement with Japan not to press the dispute in the GATT in exchange for slight easing of the trade restrictiveness of these quotas. The agreement expired April 22, 1986. *[Ted Wilson (202) 786-1688]*

COUNTRY BRIEFS

Israeli Water Situation Worsening

For the third consecutive year, Israel has suffered from drought. Severe dry conditions in most of the country have resulted in a wheat crop failure, barley output is practically wiped out, and water restrictions have further exacerbated an already difficult agricultural situation. In March, water quotas for all users were cut 10 percent from 1985.

With grain output lower, wheat imports should increase somewhat, although marginally. The United States is Israel's leading supplier. Cotton output, already forecast lower because of falling prices, may decline more as scarce water resources are diverted.

In the citrus sector, opinions vary widely as to the drought's consequences. Following the reduced crop of 1985/86, the upcoming crop was expected to increase. But with smaller fruit, especially during the first half of the season, it is doubtful whether production will rise. However, as long as the present water quota is held, the trees are not expected to be affected over the long term.

The outlook for the water situation during the next few years is not good. Even a plentiful rainy season cannot make up for the deficit, which results from many years of overpumping. The cut in allocations will therefore continue. The Ministry of Agriculture estimates the loss at $40 million; other estimates are much higher. *[Michael E. Kurtzig (202) 786-1680]*

South African Corn Exports Recover

With grain production--estimated at 10.6 million tons--up 2 percent over 1985, and the corn crop up at nearly 8 million tons, South Africa should have a 2-million-ton surplus for export, mainly to Japan and Taiwan. Corn exports will be the largest since the severe drought of 1983. Although yellow corn production is surplus, white corn output is down to an estimated 3.3 million tons, not sufficient for domestic consumption. Imports of 200,000 tons were arranged from Zimbabwe, and further imports have been discussed but may be precluded by trade sanctions or counter sanctions.

While the 1986 wheat harvest is forecast up to 1.9 to 2 million tons, stocks are low, and the crop--already damaged by drought--still faces a locust threat. Imports in 1986/87 will be at least 300,000 tons, matching last year's 301,000, of which the United States supplied half.

Other crops have not fared well, due mainly to poor weather. The sorghum crop is down 30 percent. Oilseed output dropped nearly 7 percent and has not recovered from the drought. Peanut production dropped 33 percent to 132,000 tons, in-shell, 42 percent below the 1976-78 base period. Cottonseed and sunflowerseed production did, however, improve. Sugar production is forecast down 5 percent to 2.1 million tons; the exportable surplus--while down from 1985/86--may still total 900,000 tons. *[Lawrence Witucki (202) 786-1680]*

Saudi Arabia To Promote Barley Output

Saudi Arabia, the world's largest barley importer, will soon announce a series of policy changes aimed at promoting barley production and thus reducing dependence on imports, which exceeded 6 million tons in 1985. The measures will be part of a package that will simultaneously attempt to limit the Kingdom's enormous wheat surplus. Observers expect that the impact on barley production will be rapid, as some large commercial farms already shifted to experimental barley plantings in 1985. The official policy announcement is expected before November, when planting for the 1986–87 grain season commences.

The policy shift has important implications for U.S. grain exporters, who this year are providing a large fraction of Saudi Arabia's barley imports, all of which is used for animal feed. They have sold 750,000 tons in fiscal 1986 under the Export Enhancement Program alone.

Currently, the Saudi Government pays private sector importers a subsidy of about $84 per ton above the world market price to insure a steady feed supply for the rapidly expanding livestock sector. Analysts expect the forthcoming policy package to reverse the current situation, with a protective tariff being applied to imports and a heavy production subsidy paid to farmers. Thus, the Kingdom's barley imports may well drop significantly within 2 or 3 years.

If current coarse grain consumption levels hold, Saudi Arabia will nevertheless be forced to continue barley imports. Total grain production capacity is estimated at about 2 million tons, virtually all of which is in wheat. Because domestic wheat use is less than 1 million tons, and wheat stocks have grown far beyond the existing silo capacity of about 900,000 tons, the Government sees immediate potential for producing up to 1 million tons of barley. *[George R. Gardner (202) 786–1680]*

New Zealand Tries To Cut Milkfat Output

The New Zealand dairy industry is feeling the full effect of oversupply in the world dairy market. Government loans shielded returns in recent years, but the farmers' basic price was cut from $NZ4 per kilogram of milkfat last season to $NZ2.25 for 1986/87. This price is equivalent to about $US2.20 per cwt of fluid milk; U.S. farmers currently receive $12 per cwt for their milk.

New Zealand butter stocks have reached burdensome levels, requiring that butter be exported at a loss. The New Zealand Dairy Board will not build more storage capacity, so a reduction in output is necessary. Milk powders (solids not fat) are less of a problem.

In July 1986, the Dairy Board proposed three voluntary programs to reduce milkfat production to an unspecified level at which all production can be sold "commercially." The Offered Price Buyout scheme pays farmers to reduce milk production, under tight controls on the use of cows, land, and equipment. The Reduced Milk Production program discourages production in isolated areas. The Nonprocessing Plan provides incentives to divert milk to calf and pig feed.

Together these programs have received little response. They may cause a 2-percent drop in milk production from the 1985/86 record of 8.2 million tons. Output was extremely large last year because of generally favorable weather and anticipation of mandatory output controls.

The annual meeting of the New Zealand dairy industry, held in November, may establish a two-tier price system. Because output per cow is relatively low, controls would be placed on land rather than herds. Weather conditions have been poor thus far this season, and many producers hope controls will not be needed. *[Sally B. Byrne, (202) 786–1611]*

HIGHER INCOME DEVELOPING COUNTRIES INCREASING COARSE GRAIN IMPORTS

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Abstract: During the past two decades, the upper-middle-income developing countries have shifted from being net exporters of coarse grains to net importers. A key factor underlying this trend is that consumers in these higher income developing countries are including more meat and poultry products in their diets. The derived demand for coarse grains created by this increased demand for animal products is increasing faster than production. The resulting shortfall has created large and growing markets for coarse grains.

Keywords: Coarse grains, developing countries, livestock feeding.

The shift of developing countries from self-sufficiency in coarse grains to dependency on imports is part of a general decline over the past two decades in the developing world's self-sufficiency in both food and coarse grains (8)*.

A key factor underlying this trend for coarse grains is a structural diet change resulting from economic development. Consumers in the higher income developing countries are including more meat and poultry products in their diet. To meet increased demand, these countries are developing and expanding their intensive livestock production systems, feeding coarse grains. The derived demand for coarse grains is increasing faster than production. Over the past 2 decades, the upper-middle-income countries have shifted from net exporters of coarse grains to net importers because of this shortfall.

Role of Developing Countries in World Coarse Grain Economy

Coarse grains are grown on about 45 percent of the world's cereal grains land. Wheat and rice occupy the largest areas, followed by corn, barley, sorghum, and millet. Of these coarse grains, corn is by far the most important, with an average area during 1983-85 of 126 million hectares and an average production of 428 million tons. Barley had an average harvested area of 79 million hectares and production of 172 million tons. Sixty-six million tons of sorghum and 30 million tons of millet were harvested on 47 and 42 million hectares, respectively. One-half of the total area of these four coarse grains is in the developing countries, not including the People's Republic of China.

Although the developing countries have half the world's coarse grain area, they have only one-fourth of the production because average yields are so low--1.2 tons per hectare, compared with 4.8 for the developed countries. The developed countries are almost the reverse, with only one-quarter of the coarse grain area and almost 50 percent of world production.

In the early 1970's, the developing countries produced a larger percentage of the world's coarse grain output than they consumed. Now, use exceeds production by 11 percent. More than 40 percent of consumption is as livestock feed. The percentage utilized as feedstuffs is much smaller than for either the developed or the centrally planned countries, which feed 78 and 68 percent of their coarse grains, respectively.

Coarse grain production, use, and trade in developing countries, 1983-85 average

Item	Corn	Sorghum	Barley	Millet
	Percent			
Production	57	21	10	12
Exported	12	10	3	—
Consumption	56	19	14	11
Used as feed	45	39	67	3
Imported	20	15	37	—
From U.S.	60	76	8	NA

— = less than 1 percent. NA = not available.

*Numbers in parentheses refer to literature cited at the end of this article.

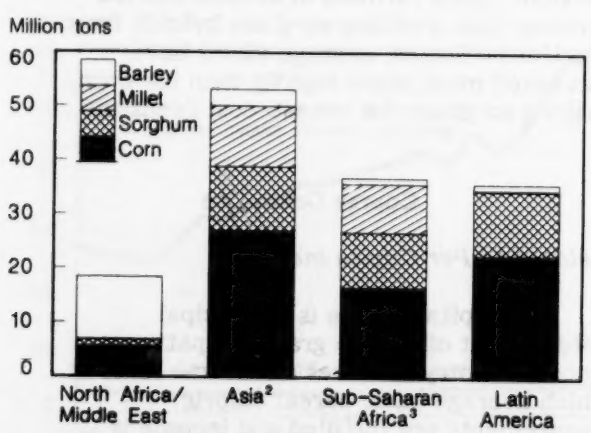
Coarse Grain Production and Imports

Corn is the most important coarse grain in the developing countries, with over half of total production. In Central America and Sub-Saharan Africa, corn is an important food. In the Middle East and North Africa, where wheat is dominant, and in Asia, where rice is the major crop, corn accounts for a smaller proportion of cereals consumed directly by people.

Sorghum and millet are important food crops in the semi-arid tropics of Asia and Sub-Saharan Africa, where they are particularly well adapted. Sorghum is also grown in South America and Mexico, but primarily for feed use. Corn is an important feedstuff in South America, particularly Argentina and Brazil. Barley is primarily grown as a feedstuff in the more temperate environments of the Middle East and North Africa.

Although 12 percent of the corn and 10 percent of the sorghum grown in the developing countries is exported, only 2 countries are significant exporters: Argentina and Thailand. Argentina has 65 percent of the corn exports and 86 percent of the sorghum exports. Thailand accounts for 28 and 9 percent of the corn and sorghum exports, respectively. Together they account for 93 percent of the corn exports of the developing countries and 95 percent of the sorghum.

Regional Coarse Grain Production[1]



1/ Annual average, 1983-85. 2/ Excludes Japan and PRC. 3/ Excludes South Africa.

Twenty percent of the corn consumed in the developing countries is imported. Unlike exports, these imports are widely dispersed. The four largest importers are South Korea, Taiwan, Mexico, and Egypt, who account for almost one-half of all developing-country corn imports. Adding the purchases of the next four largest importers of corn (Brazil, Malaysia, Venezuela, and Iran) accounts for two-thirds of the corn imports of the developing countries. Sorghum imports are more concentrated: Mexico, Venezuela, and Taiwan account for two-thirds of all developing country imports. Mexico by itself has more than 40 percent of these sorghum imports. Saudi Arabia, Iran, Taiwan, and Algeria account for two-thirds of barley imports, with Saudi Arabia taking more than half.

The United States supplies a significant proportion of the corn and sorghum imported by the developing countries. The small amount of barley exported to developing countries is mostly from Europe.

Corn, Sorghum, and Millet in Asia and Sub-Saharan Africa

Corn, sorghum, and millet are the three main nonirrigated cereals in Asia and Sub-Saharan Africa. These crops have physiological differences that make each more or less suited to production in tropical regions. Sorghum and millet are important crops in semi-arid tropical regions because they tolerate periods of moisture and heat stress better than corn. Corn is a higher risk crop in the drier areas, whereas sorghum can usually produce some grain, even under low rainfall. Millet is even better adapted to extremely dry conditions because it matures more rapidly than sorghum, so it can be grown with less rainfall.

The largest corn producers among the developing countries in Sub-Saharan Africa are Zimbabwe, Kenya, Nigeria, and Tanzania. The larger commercial farmers and some smallholders, especially in Kenya and Zimbabwe, growing corn in more temperate environments use hybrids with yields much improved over the local varieties. In the tropical, lowland areas with adequate moisture, farmers grow improved local varieties.

Physiological differences among corn, sorghum, and millet

Item	Corn	Sorghum	Millet
Rooting system	Superficial, in the upper 50 cm	Stronger and deeper than corn	Stronger and deeper than sorghum
Water requirements (mm) over the growth period	500-600	400	300-350
Temperature requirement (°F)	Optimum 77 Minimum 59 Maximum 113	Sorghum and millet have temperature requirements similar to corn, but can withstand higher maximum temperatures.	
Yield (kg./ha.)			
High inputs	4,000-5,000	3,000	1,000-1,500
Low inputs	1,000	750-1,000	500-700

Source: Frere (3)

The corn grown in the semi-arid, tropical areas is unimproved varieties. However, even though corn is not well suited to these semi-arid areas, it may still be grown because it is the preferred foodstuff or is better protected against grain-eating birds. Consumer preference is very important because these grains are grown in Sub-Saharan Africa primarily for human consumption. In Sub-Saharan Africa, Nigeria is the major sorghum producer, followed by Sudan and Ethiopia. The major millet producers are Nigeria and Niger.

In Asia, India is the major producer of corn, sorghum, and millet, primarily for human consumption. India grows more than 10 million tons each of sorghum and millet and 8 million tons of corn. It is the world's largest producer of millet and the second largest producer of sorghum after the United States. Corn is the fourth most important crop in Thailand. Sorghum is a minor crop grown in the dry season following corn. In 1983-85, Thailand produced about 4.5 million tons of corn and 0.4 million tons of sorghum, and exported an average of 3.1 and 0.3 million tons, respectively.

Barley in North Africa and Middle East

Barley, a more temperate-climate crop than corn, sorghum, and millet, is important in the Middle East and North Africa. It is a short-season crop that is more dependable than wheat in dry regions. Barley is important to the sheep economy of the Middle East and North Africa. Often it is grazed at the tillering stage and then allowed to grow to maturity for both its grain and straw.

Coarse Grains in Latin America

Corn and sorghum are important crops in South America. Argentina and Brazil are the major producers, and Argentina is the largest exporter of coarse grains in the developing world. Domestic use of these crops is primarily for feed. In 1983-85, Argentina produced about 11.2 million tons of corn and 5.9 million tons of sorghum, and exported an average of 7.3 and 3.1 million tons, respectively.

Corn is widely grown in Central America as a foodgrain. Sorghum, however, supplies the expanding feed and livestock industry of Mexico. Since farmers in Mexico started growing high-yielding sorghum hybrids from the United States, average yields have increased much more rapidly than for corn, making sorghum the lowest-cost feedstuff.

Coarse Grain Use

Related to Per Capita Income

Per capita income is a principal determinant of coarse grain use patterns. Once a country achieves an income level at which average basic cereal calorie requirements are fulfilled and income is available to buy meat, the feed use of coarse

grains can increase rapidly. Thus, empirical studies have shown a strong, positive relationship between per capita income and the use of cereals as feed (5, 6). In contrast, studies at the International Maize and Wheat Improvement Center (CIMMYT) have found no significant relationship between per capita income and use of corn directly as food. Per capita food use has been relatively constant across all developing countries the past two decades.

Feed Use of Coarse Grains

The increased use of coarse grains as feed implies considerable potential for expansion of the use of these crops. For example, 1 kilogram of livestock production from an intensive production system requires from 2 to 6 kilograms of grains. Because of this leverage, as livestock products increase in the diet, use of grains as feedstuffs can grow very rapidly, more rapidly than income.

Per capita use of coarse grains as feed, relatively high and rising in the upper-middle-income developing countries, has shifted these countries as a group from net exporters to net importers. Feed use in the lower income countries is low and constant.

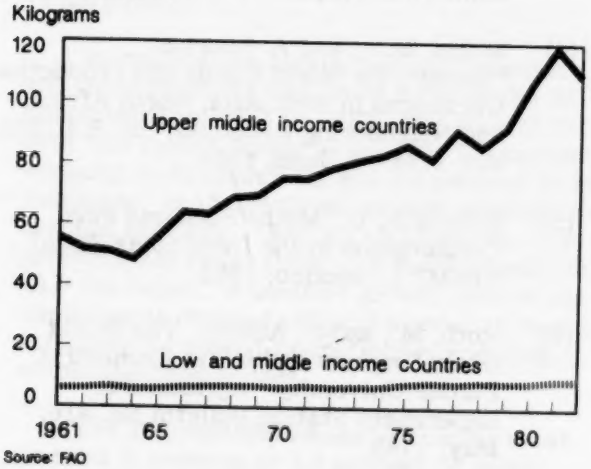
Corn is the most important feed source in the developing countries, as in the world at large. Wheat bran and rice bran are the second most important. Sorghum, barley, and millet make up most of the balance of total feed supplies. As a share of developing-country feed supplies, corn is 43 percent; wheat and wheat bran, 18; rice and rice bran, 18; sorghum, 9; barley, 7; millet, 2; and others, 3 (1). The contributions of wheat and rice are largely bran. The four coarse grains discussed here are 61 percent of total feed supplies.

Feed substitution of corn for swine and poultry

Feed	Feed value relative to corn 1/	Extent feedstuff can replace corn
	Percent	
Swine		
Corn	100	100
Barley	90-95	100
Millet	85-90	50
Sorghum	95	100
Wheat	100-105	100
Wheat bran	75	15-25
Rice	80-85	50
Rice bran	100	33
Poultry		
Corn	100	100
Barley	80-85	50
Millet	95-100	65
Sorghum	100	100
Wheat	90-95	100
Wheat bran	75	10-15
Rice	80-85	20-50
Rice bran	50	5-10

1/ Pound for pound.
Source: Ensminger (2)

Per Capita Feed Use of Coarse Grains in the LDC's



Corn is one of the best feeds for livestock because it is high in digestible nutrients and net energy. However, other cereals can substitute for corn in livestock rations, within limits. Their use will vary from country to country, reflecting supplies, government policies, and relative prices.

For example, where wheat consumption is rising, the use of wheat bran for feed is also rising. In some countries which have become major wheat importers, the use of wheat bran as feed is increasing more rapidly than the use of corn. Heavily subsidized wheat prices can also lead to the use of wheat for animal feed. Major rice producers depend significantly on broken rice and rice bran as feed sources. For example, 23 percent of feed used in Thailand's rapidly growing livestock sector is rice, 36 percent is rice bran, and 30 percent is corn (7). Countries with relatively large barley or sorghum crops rely more on these grains.

Coarse grain imports, upper middle income LDC's

Country	Corn	Sorghum	Barley
	Percent 1/		
Asia			
South Korea	15	6	—
Taiwan	15	10	4
Malaysia	5	—	—
Hong Kong	2	—	—
Singapore	2	—	1
Latin America			
Mexico	11	43	—
Venezuela	4	13	—
Brazil	7	—	2
Panama	—	—	—
Trinidad	—	—	—
Uruguay	—	—	—
Argentina	—	—	—
Chile	—	—	—
North Africa Middle East			
Saudi Arabia	3	—	54
Algeria	2	5	4
Iran	3	—	6
Jordan	—	—	2
Syria	1	—	2
Oman	—	—	—
Libya	1	—	3
Kuwait	—	—	2
Israel	1	10	3
Iraq	2	—	4

1/ Percent of developing countries' imports of commodity in 1983-85. — = less than 1 percent.

It is estimated that over two-thirds of the grains used for feed in the developing countries are fed to poultry and swine (1). Growth rates for broiler production have been particularly strong in the Middle East, Southeast Asia, and Western and North Africa. In each of these regions, the rapid growth has resulted from the introduction of more feed-efficient birds, and investment in intensive poultry production units and associated feed manufacturing units. Egg production has also expanded rapidly in the developing world, although not as dramatically as poultry meat. The growth in eggs has also been associated with implementation of intensive production methods.

The growth in pork production in developing countries, although less rapid than poultry meat and egg production, has also boosted demand for coarse grains significantly. This is because pork production uses more grain per unit of output than poultry. Under good conditions in an intensive production system, 5 to 6 kilograms of feed are required to produce 1 kilogram of pork, whereas only 2 to 3 kilograms are required to produce 1 kilogram of poultry meat. The strongest growth in pork production is in Central America and East Asia. Dairy and beef production has contributed little to the demand for feed grains.

Rising in Upper-Middle-Income Countries

The use of coarse grains in the upper-middle-income countries has increased much faster than production, and was the driving force in shifting the developing world from being net exporters to net importers of coarse grains in the late 1970's. This group includes all the major coarse grain importers discussed earlier except Egypt. (Note that this group also includes Argentina, a major coarse grain exporter.) Generally, coarse grain imports by these countries appear unlikely to be offset by rapid increases in domestic production, as happened with the green revolution in wheat for India and Pakistan.

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POTENTIAL WORLD FEED GRAIN MARKETS

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The demand for feed grains is derived from the demand for meat and meat products. By identifying countries that are unlikely to produce enough feed grains to support rising demand for meat, future markets for feed grain exports can be determined. This analysis used Food and Agricultural Organization data tapes from the Food Balance Sheet and the Production Year Book on over 100 developed, developing, and centrally-planned-economy countries.

Growth in Meat Demand

Past analysis has shown that per capita meat demand increases rapidly as diets approach caloric adequacy. Thus, this analysis began with a review of the average human diet in more than 100 countries. Of these, 64 were found to have adequate average diets as defined by FAO daily per capita caloric requirements.

Increasing per capita demand for meat and meat products was found in 55 of the 64 countries from 1961 to 1982. The growth rate over this period equals or exceeds 1.0 percent annually in 40 countries, and 2.0 percent in 26 countries. In 15 countries, growth exceeds 3.0 percent annually. Over all 64 countries, the growth rates range from -1.0 for Paraguay to +6.9 for Japan. A positive growth rate in per capita meat demand reflects a level of income sufficient to permit discretionary spending within the food budget.

The 26 countries whose per capita meat demand is growing at 2.0 percent or more annually tend to be upper-middle-income and industrial countries. However, only Japan, Finland, the Netherlands, German Democratic Republic, and Belgium-Luxembourg have per capita incomes exceeding $5,000, based on purchasing power parity (purchasing power parity estimates of gross domestic product, Heston and Summers (1984), allow comparisons over time for a wide range of countries).

In fact, the highest income countries tend to increase their meat consumption at a slower rate, such as Canada at 0.9 percent annually and the United States at 0.7 percent. Australia has a negative growth rate of -0.5 percent. These countries have stabilized their meat consumption.

Thus, current and future growth in the demand for meat and meat products is not in the highest income countries, but rather in middle-income countries with annual per capita income levels of $2,000-$4,000.

Growth in Meat Production

Growth in total meat demand does not necessarily mean that a nation's domestic meat production is growing. Of the 64 countries with adequate average diets, 56 show positive per capita meat production growth from 1961 to 1982. In 20 of these 56, the growth rate is higher for consumption than for production. For these countries, the incentive to increase domestic production should be especially strong.

Moreover, 20 (but not necessarily the same 20 mentioned above) of the 64 countries

Meat and coarse grain data for countries with adequate diets but lacking self-sufficiency in coarse grains

Economy 1/	Population 2/	Per capita GDP 3/	Per capita meat 4/ consumption	Per capita meat 4/ production	Growth rates, per capita meat 5/ Consumption	Production All	Production Beef	Production Poultry	Production Pork	Production Sheep & goat	Coarse grain Feed use Growth rate 5/	Feed use Total 4/	Net imports 4/	Self-sufficiency ratio 6/
	Millions	$PPP /7	Kilograms/year		Percent, compounded annually							1,000 m.t.		
Low income	5.2											35	40	
Guyana	.8	1,164	24.5	24.5	2.9	4.1	-0.4	8.6	4.9	3.5	2.7	8	7	0.33
Mauritius	1.0	1,484	13.9	7.4	3.9	2.7	-3.3	10.9	.8	-2.2	27.2 8/	12	15	.08
Benin	3.5	426	11.0	10.8	1.3	1.1	1.0	6.6	.7	2.7	24.6 8/	15	17	.97
Average		734	13.6	12.2	2.1	2.1	.2	8.1	1.4	2.7	2.7 10/			.94
Lower middle income	153.4											319	285	
Jamaica	2.2	1,415	36.6	26.0	3.3	2.0	-1.6	8.8	2.5	-3.8	16.3	215	248	.02
Indonesia	151.2	737	3.7	3.7	1.0	1.0	-1.1	3.6	3.0	0	2.5	104	37	1.00
Average		747	4.2	4.0	1.2	1.1	-1.1	3.9	2.9	-.2	7.6			.96
Upper middle income	133.0											14,016	12,390	
Greece	9.6	3,789	65.2	59.9	4.9	4.6	3.6	11.0	6.0	1.6	9.5	3,008	983	.86
Korea, Rep. of	39.6	2,010	13.6	13.1	5.1	4.4	4.2	6.7	4.1	2.5	17.4	2,874	3,632	.14
Portugal	9.9	3,019	52.5	52.4	4.0	4.2	3.7	10.9	3.3	.2	11.0	3,602	3,443	.18
Hong Kong	5.0	3,875	70.5	55.9	3.1	3.8	1.2	9.2	3.9	2.2	6.8	319	352	0
Singapore	2.4	3,979	64.0	44.7	4.8	3.6	-8.4	5.4	3.1	-2.6	4.8 9/	399	494	0
Syria	8.8	2,206	24.3	23.1	3.2	3.2	3.5	7.6	NA	1.6	6.4	902	162	.75
Trinidad & Tobago	1.2	3,917	39.8	22.4	2.3	3.0	-1.7	4.1	1.9	1.2	13.2	152	130	.03
Israel	3.8	4,351	71.1	74.2	3.4	2.8	-.9	3.5	1.8	.5	4.9	1,250	1,195	.06
Malaysia	14.0	2,113	19.2	17.1	2.0	1.7	-1.6	5.1	-.6	-7.1	12.3	102	662	.02
Iran	38.8	1,917	23.4	19.9	2.7	1.7	1.7	9.6	-1.6	-.2	6.6	1,408	1,338	.52
Average		2,400	29.3	26.4	3.4	3.0	2.2	6.7	2.9	.6	9.3 10/			.33
Industrial market	315.0											61,354	43,151	
Japan	116.8	5,963	30.4	27.8	6.9	6.3	4.8	9.9	8.3	-15.4	8.6	18,978	22,223	.01
Spain	37.5	4,224	69.3	72.6	5.6	5.8	2.9	10.7	6.6	-.1	8.9	14,435	7,368	.57
Italy	56.2	4,624	73.7	87.2	4.2	4.1	1.8	6.3	5.1	2.0	2.8	12,223	3,765	.78
Netherlands	14.1	5,811	76.1	153.9	2.4	3.6	1.8	6.1	4.0	2.7	1.8	2,493	3,244	.05
Finland	4.8	5,984	62.4	72.6	2.6	3.6	2.2	4.1	5.3	-3.9	7.7	1,185	158	.95
Belgium-Luxembourg	10.2	6,250	99.2	126.7	2.2	3.4	1.3	3.1	5.0	1.5	1.4	1,354	2,205	.24
Ireland	3.4	3,367	88.3	226.3	1.5	2.1	3.4	4.0	.4	-.5	5.0	983	161	.93
Switzerland	6.4	6,458	87.7	78.9	1.8	2.0	.9	6.9	2.8	0	5.8	936	676	.39
Germany, F.R.	61.6	6,859	89.5	132.1	1.8	1.8	1.0	5.9	1.8	1.6	4.4	8,016	3,017	.80
Norway	4.1	6,746	51.6	53.5	.9	1.2	1.0	6.2	1.3	1.4	2.4	751	335	.72
Average		5,687	61.1	77.1	3.3	3.1	1.7	7.5	3.2	.5	5.6			.44
Centrally planned	297.5											63,175	24,763	
German D.R.	16.7	5,535	95.3	172.1	2.2	2.5	2.2	4.4	2.5	-2.5	9.6	5,226	2,990	.64
Czechoslovakia	15.3	4,879	83.9	139.8	1.5	1.9	2.1	4.5	1.6	-.8	4.5	4,137	1,259	.84
USSR	265.5	3,939	55.6	73.5	2.0	1.4	2.7	4.4	.5	-1.8	5.7	53,813	20,514	.78
Average		4,077	59.2	82.3	1.9	1.5	2.7	4.4	.8	-1.7	5.8			.77
Total	904.2											138,899	80,629	
Average		3,807	45.7	58.4	2.4	2.0	1.9	5.8	1.6	.7	6.0			.60

NA = not available. 1/ After analysis, countries were organized by World Bank classifications. 2/ 1980. 3/ 1979-81. 4/ 1980-82. 5/ 1961-82. 6/ 1982-84. 7/ Purchasing power parity, explained in R. Summers and A. Heston, "Improved International Comparisons of Real Product and its Composition, 1950-80," The Review of Income and Wealth, June 1984. 8/ 1977-82. 9/ 1966-82. 10/ Group average includes only those countries having data from 1961-82.

consumed more meat per capita than they produced on average during 1980–82. Obviously, these countries import. To the extent they desire to reduce their dependence on imported meat, there will again be an especially strong incentive for increased domestic production.

Growth in Feed Grain Demand

Future increases in demand for feed grains are likely to occur in those countries having high meat production growth rates. Japan, where continued growth in consumers' incomes has steadily increased the demand for meat, has the highest growth rate in per capita meat production, 6.3 percent. Paraguay has the lowest, a negative rate of -2.1 percent.

Of the 64 countries in this analysis, 42 were found to have meat production growth rates of 1.0 percent or more annually, with 14 of these being self-sufficient in coarse grain production and projected to remain self-sufficient to the year 2000. However, the remaining 28 countries show large increases in total coarse grain feed use from 1961 to 1982. The lowest growth rates are found in Belgium-Luxembourg, 1.4 percent, and the Netherlands, 1.8 percent, both high-income countries. By contrast, the highest growth in feed use occurs in the Republic of Korea (17.4), Jamaica (16.3), Trinidad (13.2), and Malaysia (12.3), all of which are middle-income countries. Those countries which have only recently started a commercial livestock/poultry industry, such as Mauritius and Benin, show even higher growth rates.

In aggregate, coarse grain feed use in these 28 countries grew at a rate of 6.0 percent annually, more than twice the 2.6-percent growth in their total coarse grain production. In addition, growth in feed use within each World Bank income category is

much higher than growth in meat production. (see table)

For all 28 countries, net imports comprised over half of total coarse grain feed use, 58 percent on average during 1980–82. A simple time trend projects feed use in 1990 at 188.4 million tons, and in 2000 at 239.1 million.

While trend projections are informative they must be used with caution. Overall economic conditions can substantially influence import demand. Economic policies in the countries studied, as well as in the United States, can dramatically alter a country's ability to import commercially or, in the U.S. case, to export. These policies can also encourage or discourage meat consumption and/or the domestic production of coarse grains, thereby affecting the need to import.

The coarse grain import demand of these countries will also be influenced by their livestock/poultry mix. Their demand for, and production of, pork and poultry is increasing faster than that for beef, sheep, and goat meat. Per capita poultry production leads pork production in all countries except Finland and Belgium–Luxembourg. Since poultry and hogs are nonruminants and cannot utilize much forage as feed, their faster production growth favors increased feed grain demand.

The 28 countries representing high growth potential for increases in coarse grain demand include 3 low–income, 2 lower–middle–income, 10 upper–middle–income, 10 industrial, and 3 centrally–planned–economy countries. Benin and Indonesia have the lowest per capita GDP adjusted for purchasing power parity, and appear to be just entering the high–meat–consumption growth stage. Indonesia represents a large potential market that could well expand if incomes continue to rise. Many of the remaining countries can be expected to double or even triple their meat consumption before meat demand levels off. The derived demand for feed grains and the need for coarse grain imports will likely remain strong through the end of this century.

LOCUSTS AND OTHER PROBLEMS THREATEN FOOD SUPPLIES IN SUB-SAHARAN AFRICA

Stephen Haykin
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Abstract: Locust and grasshopper infestations, drought, civil wars, and internal distribution problems threaten food security throughout Sub-Saharan Africa. This year, grasshoppers and four species of locusts are creating a potential threat to food supplies in 28 African countries. While it is not possible to predict the magnitude of food crop losses during the 1986/87 harvest, food supplies are not likely to be depleted to the same degree as during the 1984/85 famine.

Key words: Locusts, food supplies, Sub-Saharan Africa, food aid.

This year, rapid multiplication of grasshoppers and four species of locusts is creating a potential threat to food supplies in 28 African countries. In addition, civil wars and guerrilla activity are disrupting food production and distribution in Angola, Mozambique, northern Ethiopia, and southern Sudan. Poor internal transportation and low purchasing power are creating local food shortages, particularly in western Sudan. Below normal rainfall in Senegal, in conjunction with grasshoppers, may reduce the 1986 harvest beginning in October.

Losses Difficult To Predict

It is not possible to predict the magnitude of pest related food crop losses during the 1986/87 harvest (preliminary estimates of food needs for 1986/87 are published in the *World Food Needs and Availabilities, 1986/87*, USDA, ERS, August 1986). The few actual pest-related crop losses reported to date are being covered by domestic food supplies in the affected countries. Currently, no increase in actual food import requirements is directly attributable to locusts or grasshoppers.

Although pest control operations or favorable weather developments such as heavy rainfall may limit damage to food supplies, significant crop losses are likely in 1986/87. The threat of damage is most severe in 10 countries: Botswana, Burkina Faso, Chad, Ethiopia, Mali, Senegal, South Africa, Sudan, Tanzania, and Zambia. Of these countries, Botswana, Chad, Mali, and Ethiopia would be the most likely to require urgent emergency food aid in the event of production shortfalls. Cereal harvests begin in August and September in East and West Africa and end in June and July in Southern Africa. As the 1986/87 harvest proceeds, it will be possible to determine whether these food supplies actually will be needed. Food supplies in Southern Africa are currently adequate, except in Angola and Mozambique where fighting disrupts food distribution.

In 1984/85, drought reduced cereal output in all of Sub-Saharan Africa to 45.3 million tons, 7.3 million below the average of the 5 preceding years. Cereal food aid from all donors to over 20 drought-affected countries in the region surpassed 7 million tons in 1984/85. This included 1.8 million tons of emergency food aid provided by the United States.

In 1985/86, production jumped to 60.7 million tons, permitting the replenishment of private and public stocks. In general, the rainfall affecting the development of 1986/87 crops compares favorably with last year's conditions, and the likelihood that food supplies will be depleted to the same degree as in 1984/85 is quite low.

International Assistance for Pest Control

Foreign donors are helping control pests and are closely monitoring the food situation. The Food and Agriculture Organization is coordinating locust and grasshopper control activities in Sub-Saharan Africa. The United

States, European Community, Japan, China, OPEC, and other donors have contributed more than $18 million in supplies and technical assistance. Despite these control efforts, locusts and grasshoppers are likely to plague African countries in 1987/88 and successive years.

U.S. ambassadors have declared disasters in 8 countries--Botswana, Chad, Ethiopia, Mali, Senegal, Sudan, Tanzania, and Zambia--based on the determination that they require financial, material, and technical assistance to bring pest infestations under control. U.S. disaster assistance for pest control in Africa during fiscal 1986 totals $4.6 million. In addition, the Agency for International Development is assessing the issue of pre-positioning emergency food aid in West Africa or in the United States.

Countries Affected

Senegal

Drought and pest infestations are likely to reduce output of cereals and peanuts in 1986/87. Rainfall was below normal during July and August in much of the country, particularly the principal peanut-producing region. Grasshoppers and locusts have already damaged germinating cereals. Pest control operations were partially successful in the south, but large pest infestations are reported in the Senegal River Basin and other parts of the north. Approximately 1 million hectares of cropland are infested or at risk. This represents a potential grain and peanut loss of 400,000 tons.

With carryover stocks of more than 50,000 tons from an above-normal harvest in 1985/86, Senegal could absorb much of this potential shortfall in national food supplies without extraordinary commercial food import expenditures. Cereal crop losses beyond 200,000 tons would require exceptional food imports. Even with smaller losses, food assistance would be required for affected populations.

Mali

Grasshoppers reduced yields on 200,000 hectares of millet and sorghum during 1985/86. Conditions were favorable for grasshopper and locust growth, signaling an increased threat to the 1986/87 harvest. Losses of seedlings within a 400-square-kilometer area have caused some farmers to replant three and four times. The period prior to September 20 is critical for pest control operations. Threatened are 250,000 hectares, with potential losses of sorghum and millet estimated at 100,000 tons.

Despite last year's grasshopper problem, cereal output was above normal. Even with carryover stocks of at least 50,000 tons, Mali will face a food deficit if 1986 output is near the 5-year average. Thus, food security is highly vulnerable to crop losses. Losses beyond 50,000 to 100,000 tons would be likely to create emergency food aid needs.

Chad

A major effort is underway to control grasshoppers, locusts, and rats. Control of desert and African migratory locusts, identified north of Lake Chad, is necessary before the end of September to prevent their migration. Grasshoppers have been reported throughout Chad's Sahelian zone, causing replanting in some areas. Although last year's exceptionally large harvest allows some carryover stocks, Chad's tolerance to production shortfalls is quite low. Since millet and sorghum yields are imperiled in the Sahelian zone, which produced 200,000 tons in 1985/86, contingency planning for partial replacement is recommended.

Burkina Faso

The presence of grasshoppers in late 1985 foreshadowed the current threat to food supplies. Grasshoppers are numerous in north and east Burkina and have already caused minor crop damage. The effectiveness of eradication programs is limited by the labor-intensive approach used, and by Burkina's poor communications.

Up to 265,000 hectares of cropland are at risk, primarily in those areas where the last three harvests were poor. As a result, farmers have limited capacity to replant. Based on recent experience, it is likely that Burkina could sustain limited sorghum and millet losses in the affected areas without requiring emergency imports.

Locust and Grasshopper Infestation in Sub-Saharan Africa, 1986/87 Harvest

Gambia, Guinea-Bissau, Niger, and Mauritania

The locust and grasshopper threats to crops for these Sahelian countries appear less serious than for their neighbors. Good rainfall in late July and early August promoted the hatching of locusts and grasshoppers in southern Mauritania, but control operations are in progress. Although there was minor damage to crops on 30,000 hectares in Niger, the pest situation there is now under control. Recent grasshopper infestations in eastern Gambia and northern Guinea-Bissau are also under control.

Cameroon

Although no significant pest problems have been identified, there is a threat of migratory and desert locust infestations from Chad beginning in October.

East Africa

Sudan

More than $5 million is being devoted to locust control efforts. East and central Sudan, the country's bread-basket, are threatened by desert and African migratory locusts. In late July, swarms were reported in three areas east of the Nile. In addition, Sudan's major producing areas are threatened by a potential influx of locusts from Eritrea in Ethiopia.

Carryover stocks of sorghum from last year's record harvest exceed 500,000 tons. Thus, sizable losses could be sustained without disrupting the food balance in east and central Sudan. Prospects are favorable for food crops in much of western Sudan. However, this remains a food deficit region with insufficient financial resources to attract necessary food supplies from the east.

Food has become a weapon in the civil war in southern Sudan. Starvation is an imminent problem in both urban and rural areas. The Government limits food supplies to the largely rural, rebel-controlled areas in the south. And, rebel forces are interdicting food supplies to southern cities under nominal control of the Government. This year, dry conditions are contributing to lower crop output. The region is believed to have locust infestations, but the security situation makes pest control impractical. As a result, locusts are a potential threat to food supplies in Kenya and Uganda as well.

Ethiopia

Armyworms and desert and African migratory locusts are prevalent in much of Ethiopia. The northern provinces of Eritrea and Tigre pose the most serious concerns because the civil wars inhibit comprehensive pest control programs. There have been reports of desert locust swarms in Eritrea. Breeding of locusts in Ethiopia is likely to continue through next March, threatening both primary and secondary harvests in 1986/87. Dry conditions in western Ethiopia will also reduce grain yields.

Since the 1986 secondary harvest was excellent, and food aid distribution lags behind port deliveries, Ethiopia will enter the 1986/87 marketing year with large initial stocks. Assuming moderate growth in cereal production--as the country recovers from drought--more than 500,000 tons of imports would be required to maintain low historical levels of per capita consumption. Ethiopia's capacity to withstand harvest losses, due to weather or pests, is low.

Tanzania, Kenya, and Uganda

Swarms of red locusts have already migrated from their normal breeding areas in western Tanzania, despite control efforts. With the onset of the September rains, accelerated population growth could threaten crops in Tanzania and neighboring countries. Migratory locusts, which spread from Sudan to Ethiopia, may also spread to Kenya and Uganda. Each of these countries had large harvests in 1985/86 with a corresponding build-up of stocks, which would cushion the impact of damage to the current crop.

Southern and Central Africa

South Africa

Authorities in South Africa have expressed concern that they may not be able to control brown locusts. During 1985/86, brown locusts produced five generations. There are numerous egg beds, and if rains are normal a large outbreak is likely during the 1986/87 season. Swarms moving at a rate of

20 kilometers per day have been reported. They have spread from the Karoo to northwestern Transvaal and the Orange Free State. Even if production losses were large, South Africa could be expected to cover food deficits through commercial imports, but this could change the current projection of global exportable supplies and import demand, as South Africa is expected to export 2 million tons of corn over the next 12 months.

Developments in South Africa hold the key to food supplies in most of Southern Africa. South Africa's locust problem poses a serious threat to harvests in early 1987 throughout Southern Africa.

Botswana

Southern Botswana was invaded by brown locusts from South Africa last February. Red and African migratory locusts are present in the north, and additional locust eggs are expected to hatch in September and October. It is estimated that two-thirds of the country is seriously threatened. Botswana is a chronic food-deficit country that has experienced droughts for the last few years.

Other Countries

Red locusts are multiplying in north and west Zambia, but the Government lacks sufficient resources for pest control. Lesotho, Namibia, Swaziland, Mozambique, Malawi, Zimbabwe, and Zambia face possible invasions of brown locusts if they are not controlled in South Africa and Botswana. It is premature to assess the impact on the early 1987 harvests in these countries. At present, Malawi and Zimbabwe have corn surpluses from the 1985/86 harvest that could be used to alleviate food shortages in the region.

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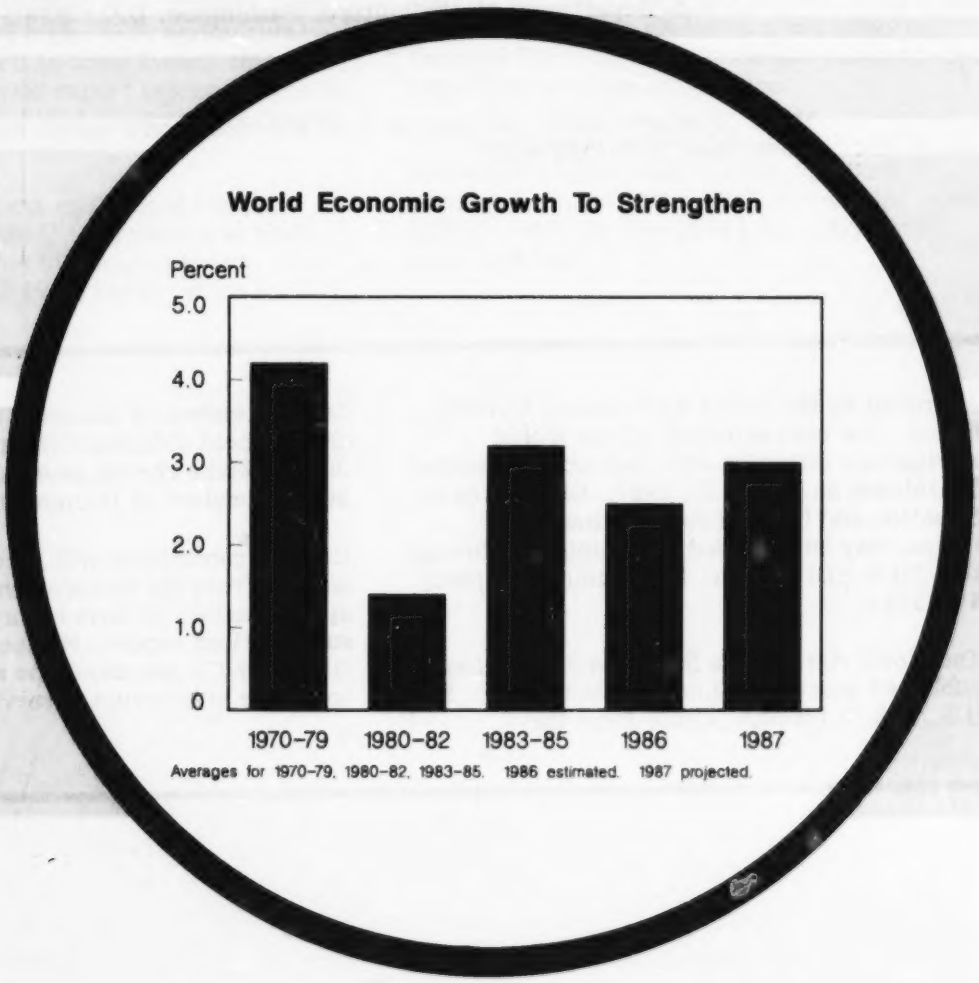

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SUMMARY

World economic growth in 1987 is expected to recover to 1985's 2.9 percent, after slowing to an estimated 2.5 for 1986. Lower oil prices and interest rates, and stronger Japanese and European currencies, will stimulate growth among the industrialized countries. This, in turn, will increase the demand for developing country exports. Rising prices for exports, plus the lower cost of imported oil and the opportunity to reschedule debt at reduced interest rates, will enhance developing-country growth into 1988.

The United States incurred its worst agricultural trade deficit with Mexico during fiscal 1986. Several factors contributed to lower Mexican import demand, including larger output of major crops and falling oil prices. At the same time, U.S. imports from Mexico were record high. U.S. agricultural exports to Japan fell to their lowest since 1979, reflecting lower export prices for grains and oilseeds, and reduced shipments of coarse grains and cotton.

Declining exports and record imports drove the fiscal 1986 U.S. agricultural trade balance down to $5.4 billion, the lowest since 1972. In late fiscal 1986, lower prices for U.S. rice, wheat, and cotton boosted export volumes of these commodities. In fiscal 1987, rising volume is expected to help offset lower prices.

Sorghum production has been increasing rapidly in the developing countries since the early 1970's, primarily from high yielding hybrid sorghums. Hybrids have been increasing yields in Asia and Latin America, but declining planted area in Asia has offset the yield effect on output.

Expanding hybrid area in Mexico and Argentina has boosted sorghum output in Latin America more than in any other region. Nevertheless, Mexico is one of the upper-middle-income countries responsible for shifting the developing world from being a net exporter of coarse grains to a net importer. Demand for feedstuffs in Mexico has outpaced expanding sorghum production.

World meat production is expected to reach 128 million tons in 1986, up about 1 percent from last year. Output will rise again in 1987, with foreign gains in poultry meat, pork, and beef.

WORLD ECONOMIC CONDITIONS

Global Assessment

Growth To Improve in 1987

World real GDP grew 2.9 percent in 1985, but is likely to fall to near 2.5 in 1986. Improvement to 2.9 in 1987 is expected with a steady but moderate expansion maintained into 1988.

Slower-than-expected economic activity in the first half of 1986 has led to downward revisions of many annual growth estimates for 1986. Much of this weak performance was due to commercial investment decisions that were postponed at the start of 1986, awaiting stabilization of oil price, interest rate, and U.S. dollar declines. These postponed investments are likely to be made toward the end of 1986, and normal business activity should continue into 1987 as markets stabilize.

Lower oil prices and interest rates, and stronger Japanese and European currencies, indicate room for improved growth among the industrial countries, and Europe in particular, during 1987. The recently released annual report by the European Community Commission projects real GDP growth near 2.8 percent next year, but the combination of factors may show this to be conservative with growth possibly reaching 3 percent or more.

Reduced cost of capital and imports indicates continued low inflation prospects of around 3 percent for Europe and Japan. However, European unemployment remains historically high, continuing to restrain incomes and consumption.

Along with other countries, Japan has benefited from the 50-percent drop in the dollar price of oil, and import costs have dropped because of the 40-percent appreciation of the yen over the dollar during the past year. However, the yen appreciation has also significantly slowed Japanese exports, dampening prospects for real GDP growth in Japanese fiscal 1986 (April-March) from 4 to 2.8 percent.

In an attempt to reach the 4-percent target, Japan introduced in September a supplementary budget worth over $23 billion aimed at increasing domestic demand through public works construction. Additional action designed to help shift the growth of the Japanese economy from export toward domestic demand came on October 31 with a reduction in the discount rate to 3 percent.

Of possibly greater impact could be revisions in the Japanese tax code in the coming fiscal year. Tax revisions would increase disposable income and thereby significantly raise domestic and import demand. Nonetheless, Japanese growth in 1987 is likely to reflect more of the export sluggishness, caused by the yen appreciation, and less of the upcoming domestic demand growth.

World Bank-IMF Meetings

At the fall annual meeting of the World Bank and IMF, finance ministers and central bank governors from the major industrial countries discussed the world's economic imbalances.

Ministers from the United States, United Kingdom, France, Germany, and Japan (G-5) focused on the U.S. desire for other members with large trade surpluses---especially Germany---to lower interest rates to stimulate demand, and boost imports to help reduce the U.S. trade deficit. Germany maintained that its current policies were already fully implemented toward this goal. The G-7 meeting (G-5 countries plus Canada and Italy) fulfilled the pledge made at the May Tokyo summit meeting of major industrial nations to review economic policies regularly to resolve any differences, aimed at improving world economic growth through better policy coordination.

Although neither meeting resulted in any direct action, the discussions concluded that further declines in the dollar, or yen appreciation, would do little to help correct the U.S. trade deficit.

Developing-Country Growth Mixed

Real GDP growth in developing countries as a group will increase moderately in 1987. Growth should expand further in 1988 as export markets pick up in the industrial countries, lower interest rates make debt reschedulings possible, and lower oil prices reduce import costs. However, although

regional differences will vary widely, the moderate income increases in industrial and developing countries will not absorb the abundant agricultural supplies on world markets. Low petroleum and commodity prices will prolong negative or minimal growth among Mideast and African countries heavily dependent upon exports.

Lower interest rates will allow many heavily indebted Latin American countries to begin or continue debt-rescheduling negotiations in 1987. Such action will likely produce moderate economic improvement for the region toward the end of 1987 and into 1988. Additional help for Latin America in 1987 will depend on improved export markets.

The Asian Pacific Rim countries will fare the best, showing steady increases of 4 to 5 percent in real GDP growth in 1986, 1987, and 1988.

New OPEC Uncertainties

World oil prices remain depressed, since OPEC oil ministers could not agree on member production quotas at their October meeting. Fresh uncertainty was added when longtime Saudi oil minister Zaki Yamani, a major architect of OPEC strategy, was replaced abruptly. How the new minister, Hisham Nazer, will pursue the Saudi Arabian Government's desire for higher oil prices remains a major unknown.

Dollar Exchange Rates

Foreign exchange markets have remained stable in recent months, with short-term interest rates for the dollar remaining just under 6 percent in the United States and abroad. Continuing low inflation has made nominal and real interest rate differentials slight. Japan and Germany countinue to have the lowest interest rates. Japan reduced its discount rate to 3 percent on October 31 and Germany held at 3.5.

The U.S. discount rate remains at 5.5 percent, with a reduction to 5 in the near-term less likely as prospects improve for U.S. growth. The U.S. dollar, stable on a trade-weighted basis since spring 1986, recently gained slightly against the yen as Japanese investors anticipated reduction of the Japanese discount rate. U.S. and Japanese

Foreign currency units per U.S. dollar

Year	Mark	Yen	Pound	Guilder	Can$
1980	1.818	226.4	.4299	1.987	1.169
1981	2.257	220.2	.4983	2.492	1.198
1982	2.427	248.8	.5722	2.669	1.233
1983	2.554	237.4	.6597	2.853	1.232
1984	2.847	237.6	.7517	3.209	1.295
1985	2.942	238.3	.7790	3.319	1.365
1986					
Jan.	2.437	199.8	.7014	2.746	1.407
Feb.	2.330	184.8	.6999	2.632	1.404
Mar.	2.276	178.6	.6809	2.565	1.400
Apr.	2.268	174.7	.6671	2.560	1.387
May	2.226	166.9	.6564	2.505	1.375
June	2.232	167.4	.6625	2.513	1.389
July	2.148	158.1	.6631	2.422	1.380
Aug.	2.060	154.1	.6726	2.324	1.388
Sept.	2.041	154.6	.6809	2.303	1.387
Oct.	2.005	156.4	.7006	2.265	1.388
Nov. 1/	2.032	162.8	.7021	2.295	1.386

1/ Preliminary.

Ministers have agreed that the exchange rate need not appreciate substantially more.

Stable interest rates, as well as oil price uncertainties which precipitated financial shifting from sterling into deutschemarks, have maintained the German mark at just above 2 per dollar. The French franc has also strengthened, to 6.7 francs per dollar, aided by an improving trade balance and decreasing French inflation.

Higher interest rates in Canada and Britain represent in large part their defense against falling world oil prices, which affect them as energy exporters. The Bank of England raised the base lending rate 1 percent in October to keep financial outflows from weakening the pound further from its $1.43 October average. Resulting British short-term interest rates are near 11.4 percent, the highest among the industrial countries. Comparable Canadian interest rates are about 8.5 percent, maintaining the Canadian dollar steady around Can$1.39 ($0.72). *[Ted Wilson (202) 786-1688]*

Harvested Area

Foreign Cropland Probably Increased

Foreign areas of cereals and oilseeds harvested during 1986/87 are projected to be slightly larger (0.6 percent) than in 1985/86, with cereals accounting for 57 percent of the net increase of about 4.8 million hectares.

Essentially all of this increase took place in 44 major exporting and importing countries that account for some 80 percent of foreign grain area. (These major countries include major exporters or importers of cereals as designated by FAS, plus the larger exporters or importers of at least one major oilseed. Many smaller developing countries are not included among these 44 countries). Coincidently, foreign oilseed producers (growers of soybeans, cotton, peanuts, sunflowerseed, flax, and rapeseed) are expected to increase their harvested areas 2 percent this year, continuing a long-term trend which has varied in amplitude but not in direction from year to year. This increase was quite widespread among both major exporting or importers countries and other foreign producers, although more pronounced among the major countries.

Revised estimates indicate that foreign cropland from which these crops were harvested actually declined slightly (0.7 percent) during 1984/85 and 1985/86. All these estimates of year-to-year variations are well within the cropland use pattern which has evolved since 1980.

Most of the net increase in output of cereals during the last 5 years was attributable to additional agricultural chemicals and genetic improvements of crop varieties rather than to more harvested area. On the other hand, foreign oilseed area has increased more than 8 percent since 1982. These aggregate assessments of trends in cropland area may hide some significant inter-country differences in trends, however.

Divergence of trends in cropland use and fertilizer consumption between different groups or classifications of foreign countries has become more apparent since 1982. Foreign countries that were major exporters and importers of cereals and oilseeds during 1984/85 and 1985/86, with the notable exceptions of Western Europe and Japan, increased their consumption of chemical fertilizers much faster than farmers in other foreign countries or in the United States. *[Richard C. Taylor (202) 786-1705]*

U.S. AGRICULTURAL TRADE

While export value suffered from lower prices and export volume for major commodities in fiscal 1986, rising volume in fiscal 1987 is expected to help offset lower prices. While U.S. agricultural imports hit a record for the third consecutive year in fiscal 1986, accelerating influences should weaken in fiscal 1987. As a result, the 1987 U.S. agricultural trade balance will not deteriorate the way it did in the previous 2 years.

U.S. agricultural trade finished 1986 in surplus for the twenty-seventh consecutive year. However, the surplus, $5.4 billion, was more than 50 percent lower than a year earlier and the lowest since 1972. While imports were high, most of the balance's decline reflected eroding exports--for example, 1986 was the first year since 1972 that the USSR purchased less than 1 million tons of U.S. wheat, and U.S. grain export volume lagged behind that of its major competitors.

End of 1986 Indicates Trends in 1987

While weak overall, fiscal 1986 ended with 4 months of rising export volume, the first such increase in several years. In the latter part of 1986, lower prices demonstrated their ability to boost export volume. Rice, wheat, and cotton exports rose in the months

U.S. agricultural export values 1/

Commodity	1984	1985	1986	1987 F
	Billion dollars			
Grains and feeds	17.4	13.3	9.5	8.2
Wheat and prod.	6.8	4.5	3.5	3.0
Rice	.9	.7	.6	.5
Feed grains and products	8.2	6.9	3.8	3.0
Oilseeds and prod.	8.8	6.2	6.3	6.0
Soybeans	5.7	3.9	4.2	4.0
Soybean cake and meal	1.2	.8	1.1	1.0
Soybean oil	.6	.6	.3	.2
Livestock prod.	3.5	3.3	3.5	3.7
Poultry prod.	.4	.4	.5	.5
Dairy prod.	.4	.4	.4	.4
Horticultural prod.	2.6	2.6	2.7	2.9
Cotton, incl. linters	2.4	1.9	.7	1.7
Tobacco	1.4	1.6	1.3	1.4
Other	1.1	1.5	1.4	1.2
Total	38.0	31.2	26.3	26.0

1/ Fiscal year. F = forecast.

following implementation of marketing loans or dramatically lower U.S. loan rates. During fiscal 1987, the largest U.S. agricultural export--coarse grains--is also expected to benefit from lower U.S. loan rates.

While it is uncertain exactly how 1987 export prices will stack up for the entire year, a good indicator in the past has been the average export price (Export Unit Value, or EUV) during the September preceding the start of the fiscal year. For corn, September's EUV was 23 percent lower than the corn EUV for all of fiscal 1986. Wheat's was 14 percent lower, and soybean's fell slightly as well. Stronger volume and weaker prices, as indicated by the EUV, will offset each other to some extent, in contrast with 1986, when both weakened.

The lower prices will allow the United States to capture an increased share of world agricultural exports for the first time since 1980. However, competition will remain keen as global export opportunities expand only slightly. The world's largest grain producer, China, will again be a net grain exporter for only the second year ever. A larger Soviet grain crop, combined with hard currency restraints, is likely to mean low Soviet imports. Finally, foreign soybean production will probably rebound, trimming trade prospects for what was the United States' best-performing farm product export in 1986. However, the United States will benefit from the Southern Hemisphere's shortage of old-crop supplies in early 1987.

U.S. Imports Could Slow

Record U.S. imports in 1986 stemmed almost entirely from higher coffee prices. Although coffee prices weakened towards the end of 1986, average import prices remained at least 30 percent above a year earlier. In 1987, the value of coffee imports will probably be driven down by lower prices, or by lower volume if continued high prices cut U.S. consumption, as during the late 1970's. Similarly, total U.S. consumption is not expected to grow as strongly in 1987, and the long-awaited impact of exchange rate adjustments will probably affect imports from European countries. *[Stephen MacDonald (202) 786-1621]*

U.S. agricultural import values 1/

Commodity	1984	1985	1986	1987 F
		Billion dollars		
Competitive				
Dairy & poultry prod.	.9	.9	.9	.9
Meat & meat prod.	1.9	2.2	2.2	2.4
Other animal prod.	1.1	1.1	1.1	1.2
Fruits, nuts & vegetables	3.0	3.5	3.5	3.4
Oilseeds & prod.	.8	.8	.6	.6
Sugar & related prod.	1.5	1.3	1.0	1.0
Wines & malt beverages	1.5	1.6	1.8	1.6
Other	1.5	1.5	2.0	1.9
Noncompetitive				
Bananas & plantains	.7	.8	.7	.7
Coffee, green & processed	3.3	3.2	4.4	3.8
Cocoa beans & prod.	1.1	1.3	1.2	1.2
Rubber & allied gums	.9	.7	.6	.6
Other	.7	.8	.9	.7
Total	18.9	19.7	20.9	20.0

1/ Fiscal year. F = forecast.

WORLD COMMODITY DEVELOPMENTS

Grains

The 1986/87 world grain supply and demand situation is much the same as in recent years. Once again the world will produce more grain than it will consume, adding to already burgeoning grain stocks. Rice is the only exception--stocks are expected to drop somewhat despite a small increase in production. Largely because of lower prices, grain trade is forecast to show modest growth in 1986/87. However, competition for markets is keener than ever before. Many major exporters face serious oversupply problems, the Soviet Union's purchasing activity is down sharply, and several countries have larger availability of feed-quality wheat. While stocks will increase in several countries, most of the increase will occur in the United States.

Global Stocks Continue To Mount

The global grain supply in 1986/87 is forecast to reach 2 billion tons for the first time, an increase of more than 80 million over 1985/86 and 150 million above 1984/85. With forecast supply exceeding consumption of total grains by 2.4 percent, stocks are likely to grow an additional 50 million tons in 1986/87.

Wheat: World production, consumption, and net exports

Country	1984/85			1985/86			1986/87 P		
	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.
	Million metric tons								
Major exporters									
United States	70.6	31.4	37.9	66.0	28.4	24.7	56.5	30.7	27.8
Canada	21.2	5.2	19.4	24.3	5.7	16.9	31.3	5.6	18.0
Australia	18.7	3.0	15.8	16.1	3.0	16.0	16.0	3.0	14.5
EC-12	82.9	59.6	12.9	71.8	58.7	12.9	71.2	59.7	12.1
Argentina	13.2	4.6	8.0	8.5	4.4	6.1	9.6	4.5	4.6
Turkey	13.3	13.6	-.5	12.7	13.8	-.9	14.0	14.0	-.1
Major importers									
USSR	68.6	91.2	-27.6	78.1	91.6	-15.2	81.0	94.0	-13.0
China	87.8	95.2	-7.4	85.8	92.4	-6.6	89.0	96.0	-7.0
Eastern Europe	42.1	40.0	+1.5	37.8	38.8	-.9	39.8	40.0	-.7
Other W. Europe	4.5	3.4	+.8	4.1	3.5	+.6	4.2	3.5	+.6
Brazil	1.9	6.3	-5.4	4.3	6.8	-2.5	4.7	7.5	-3.0
Mexico	4.2	4.4	-.5	4.4	4.7	-.1	4.5	4.9	-.2
Other Latin Am.	2.0	8.6	-6.8	2.3	8.6	-6.5	2.4	9.1	-6.7
Japan	.7	6.3	-5.3	.9	6.3	-5.2	.9	6.3	-5.3
India	45.5	43.1	0	44.2	43.9	+.5	47.0	46.1	+.4
South Korea	--	3.0	-3.1	--	3.1	-3.0	--	2.8	-2.7
Indonesia	0	1.5	-1.6	0	1.4	-1.4	0	1.6	-1.6
Other Asia	16.8	25.1	-7.8	17.4	24.6	-7.7	19.9	26.4	-6.9
Egypt	1.8	8.5	-6.6	1.9	8.5	-6.7	1.9	8.7	-7.0
Morocco	2.0	4.2	-2.5	2.1	4.3	-2.0	3.3	4.4	-1.5
Other N. Afr./ME	10.0	25.4	-15.0	13.2	26.1	-12.3	12.6	26.8	-14.3
Other Africa	3.2	8.5	-5.6	3.0	8.1	-4.4	3.3	8.5	-5.1
Residual	.3	.4	-.6	.2	.1	-2.3	.5	.6	-2.9
World	511.3	492.5		499.1	486.8		513.6	504.7	

Trade on July-June years. -- = negligible. P = projected.

Rice: World production, consumption, and net exports

Country	1984/85			1985/86			1986/87 P		
	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.
	Million metric tons								
Major exporters									
United States	4.4	1.9	1.8	4.4	2.1	2.2	4.2	2.2	2.5
Thailand	13.1	8.8	4.0	13.0	9.0	4.4	12.7	8.8	4.0
Pakistan	3.3	2.4	1.0	2.9	2.0	1.1	3.2	2.1	.9
China	124.8	123.9	.9	117.9	117.2	.8	120.4	119.7	.8
India	58.6	57.0	.2	61.0	60.3	.2	60.0	60.8	.2
Burma	9.3	8.8	.5	9.3	8.7	.6	9.4	8.8	.6
Japan	10.8	10.2	--	10.6	10.0	-	10.3	9.9	--
Italy	.7	.3	.4	.8	.4	.4	.7	.3	.4
Australia	.6	.1	.4	.5	.1	.4	.5	.1	.3
Major importers									
Indonesia	25.9	25.2	+.4	26.5	26.2	+.3	26.5	26.5	-
South Korea	5.7	5.5	0	5.6	5.8	0	5.5	5.6	0
Bangladesh	14.6	14.9	-.3	15.2	15.4	-.2	15.5	15.6	-.3
Vietnam	10.0	10.4	-.4	9.8	10.2	-.5	10.3	10.7	-.4
Other Asia	17.2	18.7	-1.5	18.0	19.4	-1.1	17.9	19.2	-1.3
USSR	1.8	1.8	-.1	1.7	1.7	-.1	1.6	1.7	-.1
Brazil	6.1	6.4	-.4	6.8	7.3	-1.2	6.8	7.6	-.5
Other Latin Am.	4.8	4.6	+.2	4.9	4.8	-.3	4.6	5.0	-.2
Iran	.9	1.5	-.6	.9	1.6	-.7	.9	1.7	-.7
Other N. Afr./ME	1.8	3.7	-1.8	1.8	3.7	-2.0	1.9	3.9	-1.9
Malagasy	1.4	1.5	-.2	1.4	1.5	-.2	1.4	1.6	-.2
Nigeria	.9	1.5	-.4	1.0	1.3	-.1	1.0	1.1	-.2
Other Africa	1.9	4.0	-2.0	2.1	4.1	-2.1	2.1	4.2	-2.2
Residual	.7	1.9	-2.1	.7	2.2	-1.9	.8	1.8	-1.7
World	319.3	315.0		316.8	315.0		318.2	318.9	

Trade on calendar years; P - projected.

As in past years, the United States will bear the brunt of the stock buildup. During 1986/87, U.S. grain inventories are forecast to grow 40 million tons, with all the increase in coarse grains. A 10-percent decline in U.S. production will be more than offset by large carryin stocks, modest trade increases, and stagnant consumption. The United States, by the end of the various crop years, will likely be holding more than 220 million tons of grain in inventory, almost 60 percent of the world total.

With foreign grain production gaining more than 2 percent, and the United States likely to gain a more-than-proportionate share of the world trade increase, many foreign exporters will face stock problems, although on a much smaller scale. Canadian wheat stocks may almost double, while coarse grain stocks rise around 25 percent. Large EC-12 inventories have been a problem for several years and while they are expected to decline in 1986/87, stocks will remain larger and result in pressure to export even though U.S. prices are lower and the U.S. dollar has increased. In Argentina, storage is limited, intensifying the need to export wheat, corn, and to a smaller extent, sorghum.

Wheat Output and Use To Rise Sharply

Foreign wheat production is expected to reach 457 million tons in 1986/87, an increase of 24 million over the previous year. About one-third of the increase is by major export competitors as Canada's 7-million-ton rise and a small gain in Argentina likely outweigh small reductions in the EC. The European Community's production of 71 million tons will be down about 11 million tons from the 1984/85 record.

Increased foreign production and low grain prices are both contributing to an expected 17-million-ton increase in wheat consumption for 1986/87. Another important factor is larger-than-anticipated supplies of feed-quality wheat in both Canada and Australia. As a result, global use of feed wheat is forecast to increase about 6 million tons.

World wheat trade in 1986/87 (excluding intra-EC trade) is forecast to improve about 2 million tons to reach 87 million. This growth of less than 2 percent is small, given the sharply reduced wheat prices. Much of the explanation lies in the slow pace of Soviet purchases. The Soviet grain crop is expected to be the best since 1978/79, and 1986/87 wheat imports will be the smallest since 1979/80.

U.S. wheat export prospects, at 28 million tons, are mostly improved over 1985/86's 25 million. The U.S. wheat export record was set in 1981/82, when sales totaled more than 48 million tons. With Soviet wheat imports depressed, U.S. sales to that market are apt to remain small. Sales under the Export Enhancement Program have accounted for almost 15 percent of wheat sales to date and will continue to play a major role.

Global Coarse Grain Production Falls

Global coarse grain outturn for 1986/87 is forecast to fall about 17 million tons, due entirely to the estimated 24-million-ton (9 percent) drop in U.S. output.

Total foreign coarse grain production for 1986/87 is forecast to increase 6 million tons to 580 million. Production in the major foreign coarse grain exporting countries--Argentina, Australia, Canada, South Africa, and Thailand--is largely unchanged from last year. However, with relatively large beginning stocks and domestic use less than 60 percent of production, competitor exportable supplies remain abundant. Thai corn and Australian barley, each down about 1 million, are the only major decline in the group. Canadian barley production in 1986/87 is a record, and coarse grain outturn is up about 2 million tons. Total Canadian coarse grain outturn is forecast at 27 million tons.

Stocks Climb As Trade Fails To Rally

As production continues to mount, so do global inventories. In 1986/87, total coarse grain ending stocks are forecast to reach almost 223 million tons, a gain of about 44 million. Most of the increase will be in U.S. corn stocks, up 40 million tons. The remainder of the global stock increase is likely to be shared by several other nations, particularly Canada. EC-12 stocks are forecast to fall almost 2 million tons.

Coarse grains: World production, consumption, and net exports

Country	1984/85			1985/86 E			1986/87 P		
	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.
	Million metric tons								
Major exporters									
United States	237.7	163.8	54.7	274.4	169.9	35.4	250.8	169.2	39.8
Canada	22.0	18.6	2.8	25.0	18.9	5.5	27.0	19.5	6.2
Australia	8.6	2.9	6.4	7.8	2.6	5.1	7.1	3.1	3.8
Argentina	18.6	7.5	10.6	17.6	7.7	9.7	17.7	7.9	9.9
Thailand	4.7	1.3	3.4	5.5	1.3	4.0	4.5	1.4	3.2
South Africa	8.7	6.8	-.4	8.8	7.4	1.4	9.9	7.4	1.8
Major importers									
USSR	90.5	113.8	-27.3	100.0	112.3	-13.0	100.0	111.0	-12.0
China	96.2	90.7	+5.6	82.3	76.1	+6.1	88.4	82.9	+5.3
Eastern Europe	72.8	72.7	-.7	68.8	73.2	-3.5	71.0	70.9	-1.0
EC-12	89.6	85.7	-1.8	88.1	83.9	+2.9	80.7	81.9	+1.1
Other W. Europe	13.9	12.7	+.6	13.1	12.3	+1.3	11.9	12.1	-.2
Brazil	22.5	23.1	-.4	20.7	23.3	-2.1	23.1	23.7	-2.0
Mexico	14.5	18.8	-4.2	14.7	18.3	-2.5	14.5	18.5	-4.3
Venezuela	1.1	2.6	-1.6	1.5	2.2	-.7	1.9	2.4	-.5
Other Latin Am.	8.6	10.3	-1.8	8.2	10.1	-1.8	8.5	10.7	-2.1
Japan	.4	21.3	-20.7	.4	21.4	-21.5	.4	22.7	-22.1
Taiwan	.3	4.3	-4.0	.3	4.4	-4.2	.3	4.7	-4.3
South Korea	.9	4.4	-3.4	.7	4.7	-4.0	.6	4.9	-4.3
Other Asia	47.3	50.4	-2.2	45.2	48.0	-1.8	47.2	49.3	-2.4
Egypt	4.4	7.0	-1.7	4.4	6.5	-1.9	4.7	6.6	-1.9
Iran	1.3	2.7	-1.3	1.3	2.8	-1.7	1.5	3.0	-1.5
Israel	.1	1.1	-1.0	--	1.1	-1.1	--	1.1	-1.1
Other N. Afr./ME	14.6	25.3	-10.8	20.1	29.8	-11.1	20.3	30.8	-11.9
Other Africa	33.6	34.3	-1.6	37.6	37.5	+.5	37.6	38.5	-.5
Residual	.6	.3	+.8	1.0	.4	-1.0	.8	.6	+1.0
World	813.5	782.4		847.5	776.1		830.4	784.8	

Production on crop year basis, trade on October-September year. Includes corn, barley, sorghum, oats, millet, rye, and miscellaneous grains. E = estimated. P = projected. -- = negligible.

International commodity prices

Year	Wheat				Corn		Soybeans	Soyoil	Soymeal 44%	
	U.S. 1/	Arg. 2/	Can. 3/	Aust. 4/	U.S. 5/	Arg. 2/	U.S. 5/	U.S. 6/	U.S. 6/	Hamburg 7/
	Dollars per metric ton									
1977	105	100	116	113	98	93	271	524	212	240
1978	131	126	134	119	105	102	259	565	189	226
1979	162	159	171	142	118	117	278	610	160	254
1980	176	203	192	175	129	159	272	522	217	271
1981	176	190	194	175	135	139	272	464	223	269
1982	161	166	165	160	110	109	233	404	197	233
1983	158	138	167	161	137	133	269	518	222	255
1984	153	135	166	153	138	132	271	678	184	210
1985	137	106	173	141	114	103	214	596	140	171
1986										
Jan.	133	108	189	140	108	100	210	447	168	197
Feb.	131	102	183	133	105	92	207	404	169	201
Mar.	136	97	189	139	101	87	208	384	180	210
Apr.	138	96	187	137	102	86	205	389	173	205
May	128	90	185	131	106	90	205	391	174	199
June	107	85	169	114	106	90	203	369	175	191
July	103	81	160	104	85	84	200	357	179	193
Aug.	104	80	137	104	74	82	198	312	182	200
Sept.	104	81	133	105	67	78	197	305	183	202
Oct.	105	80	130	108	67	70	188	322	168	197

1/ No. 2 hard winter, ordinary protein, f.o.b. Gulf ports. 2/ F.o.b. Buenos Aires. 3/ No. 1 western red spring, 13.5% protein, in store Thunder Bay. 4/ July-June crop year, standard white, f.o.b. selling price. 5/ U.S. No. 3 yellow, f.o.b. Gulf ports. 6/ Decatur. 7/ F.o.b. ex-mill.

World coarse grain trade (excluding intra-EC trade) in 1986/87 is projected at 85 million tons, only 1 million above last year. U.S. coarse grain sales for the year are now expected to reach about 40 million tons, an 11-percent gain from a year earlier but far from the record 71 million tons in 1979/80. Larger barley sales account for more than one third of the U.S. gain. Barley sales have been bolstered by EEP offers to Saudi Arabia, and are expected to reach 2.2 million tons, almost triple last year's.

A number of factors are limiting this year's world and U.S. coarse grain trade. Most notable are reduced Soviet purchases in the world corn, sorghum, and barley markets. This disinterest likely results from increased Soviet domestic crop prospects and hard currency difficulties caused by depressed energy prices. Aggressive selling by China and Australia has affected U.S. trade flows as well, as both have created new and expanding markets for coarse grain sales and sales of competing commodities. Each has increased sales to Korea and the Soviet Union, diminishing U.S. prospects. In addition, Argentina, whose ending stocks are traditionally very low, is actively expanding trade with Brazil and Japan. *[James Cole (202) 786-1691]*

Oilseeds

In 1986/87, the U.S. share of world oilseed output and exports is forecast to decline to 31 and 61 percent, respectively. Four years ago, the United States accounted for 38 percent of production and 75 of exports.

One major reason for the decline is expanded oilseed plantings by foreign producers, who are expected to harvest about 2.8 million more hectares of soybeans, peanuts, and rapeseed than in 1985/86. Although world oilseed prices have fallen since 1983, the drop has done little to discourage further foreign entry into traditional U.S. oilseed markets, particularly the world soybean market.

Foreign Planting Gains Exceed U.S. Cuts

Among the major oilseeds, 1986/87 soybean plantings outside the United States reflect the largest year-to-year change- up 1.3 million hectares. Argentina, Brazil, and China, all net exporters, will account for more than 60 percent of this rise. All three are likely to displace U.S. soybean sales. Even Italy, traditionally a minor producer of soybeans and the EC's fifth largest importer of U.S. soybeans in 1985/86, has increased soybean area more than sixfold in the last 2 years. Production and crushing subsidies, coupled with a favorable support price compared with corn, are the main reasons behind Italian expansion. If this trend continues, Italy, which prior to 1983 had imported all its soybeans and meal, could satisfy about 70 percent of its soybean needs from domestic production by 1990.

In contrast to foreign oilseed expansion, U.S. producers planted 1.7 million fewer hectares in 1986/87. This marks the second consecutive drop in U.S. oilseed area and continues the downward trend that began in 1979/80 when area peaked at 36.8 million hectares. In 1986/87, U.S. area is forecast to fall to 29 million hectares, compared with foreign area of 108 million.

World oilseed output is projected to reach a record 198 million tons, primarily because of all-time high soybean, peanut, and rapeseed outturn. Increased South American and Chinese soybean production will more than offset the projected 2.4-million-ton U.S. reduction. Foreign peanut output will rise to more than 19 million tons, primarily because of a 13-percent increase in India. U.S. peanut output, however, will drop 17 percent to 1.6 million tons. Record rapeseed production is forecast because of higher output in China, Canada, India, and Eastern Europe. In contrast, world cottonseed and sunflowerseed production is expected to fall slightly to 28.1 and 19.1 million tons, respectively. More than one-half of the drop will come from the United States.

World Oilseed Exports To Rise

World oilseed exports are forecast to rise 5 percent to more than 35 million tons. The United States will continue to dominate world soybean trade, accounting for more than three-fourths of exports. Although U.S. soybean exports are projected to show a small increase in 1986/87, the U.S. share of world trade may slip 1-2 percent as South American competitors market their larger crops. Bad weather cut the 1985/86 Brazilian crop more

Soybeans and products: World production, consumption, and net exports

Country	1984/85			1985/86 E			1986/87 P		
	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.
	Million metric tons								
Soybeans									
Major exporters									
U.S.	50.64	28.03	16.28	57.11	28.66	20.14	54.68	29.39	20.68
Brazil	18.28	13.13	3.10	13.40	12.43	.85	16.50	12.80	1.65
Argentina	6.50	3.86	3.29	7.30	4.37	2.54	7.50	4.60	2.50
China	9.69	1.59	1.05	10.50	1.76	1.30	11.00	1.86	1.10
Major importers									
EC-12	.15	12.37	-12.84	.34	12.68	-12.78	.77	13.11	-12.83
Japan	.24	3.79	-4.61	.23	3.95	-4.75	.23	3.98	-4.85
Eastern Europe	.77	1.26	-.59	.53	1.31	-.85	.75	1.45	-.79
Mexico	.55	2.00	-1.43	.75	1.73	-1.00	.60	1.80	-1.20
Taiwan	.01	1.20	-1.47	.01	1.29	-1.57	.02	1.32	-1.56
USSR	.47	1.13	-.85	.46	2.24	-2.00	.50	2.28	-2.00
Residual	5.47	5.41	-1.93	5.67	5.92	-1.88	6.33	6.35	-2.70
World	92.77	73.77		96.30	76.34		98.88	78.94	
Soybean meal									
Major exporters									
U.S.	22.25	17.67	4.46	22.64	17.35	5.45	23.12	17.69	5.35
Brazil	10.17	1.99	8.44	9.66	2.42	7.38	9.89	2.60	7.50
Argentina	3.08	.27	2.88	3.49	.35	3.20	3.67	.35	3.30
Major importers									
EC-12	9.82	18.06	-8.28	10.13	18.04	-7.90	10.41	18.07	-7.63
Eastern Europe	1.02	4.57	-3.54	1.06	4.81	-3.80	1.16	5.00	-3.86
USSR	.86	1.41	-.55	1.75	2.35	-.60	1.78	2.38	-.60
Japan	2.92	3.12	-.09	3.05	3.18	-.22	3.07	3.29	-.13
Mexico	1.46	1.50	-.08	1.26	1.42	-.07	1.31	1.40	-.08
Residual	6.58	10.70	-3.24	7.19	11.45	-3.44	7.67	11.98	-3.85
World	58.16	59.29		60.23	61.37		62.08	62.76	
Soybean oil									
Major exporters									
U.S.	5.20	4.50	.75	5.27	4.57	.57	5.39	4.67	.54
Brazil	2.46	1.55	.82	2.35	1.87	.30	2.39	1.97	.45
Argentina	.64	.07	.50	.73	.11	.63	.76	.10	.66
EC-12	2.22	1.42	.78	2.27	1.43	.84	2.32	1.48	.87
Major importers									
India	.15	.57	-.40	.17	.49	-.22	.20	.50	-.30
Pakistan	0	.19	-.17	0	.22	-.28	0	.30	-.27
Eastern Europe	.19	.37	-.20	.21	.37	-.19	.23	.37	-.13
Iran	.02	.34	-.32	.02	.35	-.32	.02	.37	-.35
Morocco	0	.13	-.12	0	.13	-.13	0	.15	-.15
Residual	2.42	3.92	-1.64	2.69	3.86	-1.20	2.79	4.03	-1.34
World	13.30	13.06		13.71	13.40		14.10	13.94	

For soybeans, consumption refers to crush. Trade and consumption on marketing year except for Brazil and Argentina which are on an October-September year. E = estimated. P = projected.

than one-quarter, resulting in a two- thirds drop in exports. Brazilian output is expected to rebound sharply in 1986/87, while Argentine production continues its upward trend of recent years.

Weaker Dollar Promotes U.S. Exports

The projection of higher U.S. soybean exports, despite larger foreign supplies, is based upon two factors making U.S. soybeans more price attractive. Since February 1985, the dollar has fallen more than 30 percent against other major world currencies. Against the yen of Japan, the second largest importer of U.S. soybeans after the EC, the dollar has depreciated 40 percent. Secondly, U.S. soybean export prices have declined since the soybean loan rate was lowered from $5.02 a bushel to $4.77 in September 1986.

In addition, stricter interpretations of soybean grading standards were introduced in September 1986. As a result, number one grade U.S. soybeans will contain less fatty acid, reducing processing costs and adding to the shelf life of soybean oil. Also in September, USDA announced an $8.5- million targeted export promotion program for soybeans aimed at countering EC domestic oilseed production aids and subsidies.

U.S. Meal Exports To Drop

World meal demand is expected to expand faster than production in 1986/87. As a result, world meal stocks will fall to their lowest since 1982/83. Although soybean meal consumption will rise, most of the increase will come from domestically produced and imported soybeans. Thus, world soybean meal trade will remain flat, and increased South American availability will reduce the U.S. share 1 percent.

World demand for vegetable oils is expected to grow slightly more than supply, reducing 1986/87 ending stocks 3 percent. World vegetable oil trade will stay level, while palm oil and soybean oil will increase their share of trade. U.S. soybean oil sales are projected to decline 5 percent as major competitors (Brazil, Argentina) expand exports about 17 percent. *[Tom Bickerton (202) 786-1691]*

Meat

World meat production is expected to reach 128 million tons in 1986, with both U.S. and foreign output up about 1 percent. Next year's gain will occur entirely in the foreign sector, up about 2 percent, as U.S. production is forecast to decline.

U.S. Poultry Output and Exports Climbing

A major portion of the expected gain in world poultry meat production in 1986 and 1987 is in the United States, as foreign output is forecast to grow 3 and 3 to 4 percent, respectively, compared to U.S. gains of 6 and 7 to 9.

Most of the growth in poultry meat production is by the major exporters, although additional production in Brazil and France will be consumed domestically. While output by the major importers also continues to gain, the pace is slower than during the past.

World poultry meat trade may rise only 1 to 2 percent during 1986 and 1987. Reduced oil prices and increased domestic production are weakening import demand in the Mideast. The U.S. share of total exports declined in the early 1980's as subsidized competition cut into Mideast markets, but is now rising because of increased demand from the Pacific Rim countries and shipments to Egypt under the Export Enhancement Program (EEP). Japan's poultry imports from the United States are expanding, due to the rapid and pronounced devaluation of the dollar against the yen, which has brought down the price of imported U.S. chicken and increased sales.

Poultry production

Country	1984	1985	1986 E	1987 P
	Thousand metric tons			
United States	7,427	7,865	8,309	8,958
Canada	559	608	628	653
Mexico	646	627	608	637
Brazil	1,398	1,530	1,650	1,850
France	1,247	1,272	1,303	1,290
Total EC-12	5,219	5,312	5,417	5,450
Eastern Europe	1,928	1,943	1,978	2,038
USSR	2,686	2,700	2,750	2,800
Japan	1,309	1,395	1,399	1,424
Other	3,058	3,185	3,321	3,483
Total	24,230	25,165	26,060	27,293

E = estimated. P = projected.

Foreign Pork Output Expands

Hog inventories have been rising in the EC, because of a favorable hog/feed price ratio. However, lower prices because of large meat supplies may dampen expansion, and hog numbers may peak next year. Feed problems continue to plague Eastern Europe and hog inventories are forecast to continue declining next year.

Foreign pork production is likely to increase 2 percent during 1986 and between 1 and 2 percent next year. China, with 35 percent, dominates foreign pork production, and its recent rapid expansion of output is forecast to moderate to about 3 percent a year in 1986 and 1987.

Pork output by the world's exporters will likely continue to gain next year. However, after increasing production nearly 5 percent this year, the United States' major suppliers may show a decline. On the other hand, major importers' production will likely fall in 1986, before showing a slight upturn next year.

U.S. Pork Exports Shrinking

Although world pork exports grew rapidly during the late 1970's, they have stagnated at

Pork production

Country	1984	1985	1986 E	1987 P
	Thousand metric tons			
United States	6,719	6,716	6,372	6,284
Canada	863	900	875	900
Mexico	942	865	922	936
Germany, Fed. Rep.	2,734	2,753	2,820	2,860
France	1,625	1,607	1,622	1,615
Netherlands	1,257	1,340	1,430	1,490
Total EC-12	11,100	11,187	11,495	11,551
Eastern Europe	6,473	6,546	6,676	6,681
USSR	5,927	5,900	5,850	5,850
China	14,447	16,495	17,000	17,600
Japan	1,424	1,531	1,500	1,560
Other	3,738	3,926	4,029	4,048
Total	51,633	54,066	54,719	55,410

E = estimated. P = projected.

about 1.7 million tons (excluding intra-EC trade) during recent years. China and Taiwan have become important exporters, reducing other suppliers' market share. U.S. pork exports have been declining and account for a very small portion of U.S. production--an average of 1 percent over the last 5 years. Higher U.S. prices relative to other exporters, and increased competition have discouraged U.S. exports.

Foreign Beef Output To Rise Next Year

World cattle inventories are likely to be down this year and next as the United States, the EC, and Argentina reduce herds. Drought in India lowered its cattle inventories in 1986. In contrast, Brazil's inventories are building, as producers continue to hold cattle from slaughter because of dissatisfaction with prices. However, the Brazilian Government has countered this move by confiscating herds. In New Zealand, a strike by meat processors in March delayed slaughter and raised midyear inventories.

Foreign beef and veal production is likely to decline 1 percent in 1986, before rising about 1 percent next year. The largest declines are in the major exporters. Argentina, Brazil, and the EC should all show declines, but Australia and New Zealand will continue to expand. Output by the major exporters next year is forecast to gain. The EC continues to reduce its dairy herd, and its beef production in 1987 may be comparable to this year.

Beef and veal production

Country	1984	1985	1986 E	1987 P
	Thousand metric tons			
United States	10,928	10,996	11,172	10,420
Canada	997	1,035	1,020	985
Mexico	1,323	1,339	1,252	1,298
Argentina	2,558	2,740	2,700	2,650
Brazil	2,300	2,400	2,200	2,400
France	1,936	1,845	1,805	1,868
Germany, Fed. Rep.	1,614	1,576	1,625	1,630
Italy	1,182	1,205	1,206	1,190
Total EC-12	7,900	7,840	7,739	7,758
Eastern Europe	2,471	2,550	2,397	2,371
USSR	7,244	7,400	7,600	7,700
Australia	1,248	1,338	1,381	1,390
Other	4,899	5,228	5,274	5,334
Total	41,868	42,866	42,735	42,306

E = estimated. P = projected.

U.S. Beef Exports Larger

The United States has captured an increasing share of the world beef market during the eighties, mainly because of increased shipments to Japan. Larger U.S. beef exports are likely in 1986 because of meat exports mandated by the Food Security Act of 1985.

Brazil's beef exports probably will fall this year because of producer holdouts. To alleviate its meat shortage, Brazil is expected to import about 400,000 tons. The 200,000 tons coming from the EC should help reduce the EC's burdensome stocks, but EC export supplies remain ample. *[Linda Bailey (202) 786-1691]*

Cotton

Some relief in the world glut of cotton will occur in 1986/87 as production falls and consumption rises. World production is forecast to decline 9 percent to 72 million bales, the lowest since the 68-million-bale crop of 1983/84. Consumption will reach a fifth consecutive record, rising 3.3 percent to 77 million bales. Global stocks are expected to fall nearly 6 million bales from the 48 million recorded at the beginning of the season, but they will remain well above the pre-1984/85 level of 20 to 25 million bales. Exports are projected to expand 2.6 million bales, or 13 percent.

U.S. Output Adjusts Most

The United States will account for most of the world's adjustment to excess cotton supplies this season. As U.S. production falls sharply and consumption and exports rise, U.S. stocks are expected to drop 3.8 million bales and account for two-thirds of the world decline. U.S. exports, which are expected to be up 4.8 million bales because U.S. prices are again competitive, will more than absorb all the growth in world imports.

Foreign ending stocks will be nearly 5 percent below 1985/86, still a relatively small drop considering the size of surplus stocks. Although foreign consumption will grow a healthy 3 percent, exports are projected to drop 2.2 million bales and production will fall only 3.3 million, 0.3 million less than the U.S. production decline. The market share of most foreign exporters will shrink as the U.S. share rises from 10 to 29 percent.

U.S. production and exports have changed markedly this year, largely because of the strong U.S. policy response to last year's drop in cotton exports and market share and runup in stocks. The U.S. acreage reduction program led to a 10-percent drop in cotton plantings for 1986/87, but foreign producers reduced area only 2 percent. In addition, for the second consecutive year, China decreased area planted and accounted for two-thirds of the foreign drop. Poor weather also cut U.S. yields, while foreign yields dropped only slightly from last year.

Low Prices Boost Use

Cotton prices in northern Europe fell from about 70 cents per pound during the 1984/85 season to a record low of 36 cents at the beginning of 1986/87. Low cotton prices contributed to the 7-percent gain in consumption registered in 1985/86 and to further gains expected this year. Lower prices of cotton relative to polyester also contributed to increased consumption. During the last two seasons, polyester prices also fell but stabilized well above cotton prices. Polyester prices at mills are now about 65 cents per pound in the United States, compared with around 50 cents for cotton. Rising consumer preference for cotton is also a factor.

Increased cotton consumption is particularly apparent in countries that supply the U.S. textile market, such as Taiwan, South Korea, and Hong Kong. Cotton use by these three major consumers rose 13, 4, and 19 percent, respectively, in 1985/86, and is expected to show similar gains in 1986/87.

Cotton: World production, consumption, and net exports

Country	1984/85			1985/86			1986/87 P		
	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.	Prod.	Cons.	N. exp.
	Million 480-lb. bales								
Major exporters									
United States	13.0	5.5	6.2	13.4	6.4	1.9	9.9	7.0	6.7
USSR	11.9	9.5	2.1	12.1	9.7	2.4	11.5	9.8	1.8
Pakistan	4.6	2.3	1.2	5.7	2.3	3.1	5.5	2.5	2.7
Egypt	1.8	1.5	.4	2.0	1.6	.5	2.0	1.6	.4
Turkey	2.7	1.9	.7	2.4	2.1	.3	2.1	2.1	.1
Central America	.8	.2	.5	.6	.2	.4	.4	.2	.1
Sudan	.9	.1	.6	.7	.1	.7	.7	.1	.7
Brazil	4.4	2.7	.3	3.8	3.1	.1	3.4	3.3	.1
Mexico	1.2	.6	.6	1.0	.7	.4	.8	.7	.1
India	7.9	7.1	.1	8.4	7.2	.3	7.8	7.4	.6
China	28.7	15.5	1.1	19.0	17.5	2.7	18.4	17.5	2.7
Major importers									
Western Europe	.9	5.9	-4.9	1.1	5.9	-4.8	1.0	6.2	-5.2
Japan	0	3.2	-3.1	0	3.1	-3.1	0	3.1	-3.1
Eastern Europe	.1	3.7	-3.7	.1	3.9	-3.9	.1	4.1	-4.1
South Korea	--	1.6	-1.6	--	1.7	-1.7	--	1.8	-1.8
Taiwan	0	1.2	-1.3	0	1.4	-1.5	0	1.6	-1.6
Hong Kong	0	.7	-.9	0	.8	-1.1	0	.9	-1.2
Residual	9.2	6.6	+1.7	8.6	6.9	+3.3	8.5	7.2	+1.0
World	88.1	69.8		78.9	74.6		72.1	77.1	

Year beginning August 1; consumption is mill use. -- = negligible. P = projected.

Growth in consumption among smaller but more rapidly growing cotton consumers has been even faster, particularly this summer when prices were at their lowest. *[Carolyn L. Whitton (202) 786-1691]*

Cocoa and Chocolate

Cocoa Supplies Continue Abundant

Cocoa bean production for 1986/87 (October/September) is forecast at 1.97 million tons, only marginally higher than the previous year's crop.

The world cocoa grind is forecast at 1.85 million tons in calendar 1987, up 2.2 percent from 1986, consistent with abundant cocoa supplies and relatively low cocoa bean prices. Despite the anticipated faster rate of expansion of grind, relative to production, consumption is still expected to be below production and therefore 1986/87 cocoa stocks may increase around 104,000 tons from 1985/86 (allowing for a 1-percent loss of weight in production). If realized, this will be the third consecutive increase following stock drawdowns in 1982/83 and 1983/84.

The United States imported over 164,000 tons of cocoa beans during January-September 1986, a 26-percent drop from 1985. However, imports of sweetened and unsweetened chocolate, and unsweetened cocoa increased. Combined U.S. imports of cocoa and chocolate for the first three quarters of 1986 were down from the same period in 1985. This suggests some stock drawdown and sluggish U.S. demand for cocoa and chocolate products, despite relatively low prices.

Prices Likely To Remain Below $1 a Pound

New York cocoa bean prices (average of daily closing prices of the nearest 3 active future trading months on the New York market) averaged nearly 99 cents a pound in calendar 1985, down from $1.06 in 1984. Prices averaged 90 cents a pound for the first 10 months of 1986, and seem likely to average close to that for the year.

New ICCA Negotiated

A new International Cocoa Agreement (ICCA) was negotiated in July 1986 to replace the 1980 agreement, which expired September 30, 1986. The agreement will be effective for 3 years and may be extended up to another 3 years. Membership consisting of 80 percent of world exporters and 65 percent of importers is needed for the new ICCA to enter into force.

The new pact includes the Cote d'Ivoire, the world's largest producer; however, the United States, the largest importer, chose not to belong. The agreement includes: management of a 250,000-ton buffer stock; prices based on SDR's (Special Drawing Rights); and a price of approximately 85 cents to $1.21 a pound. The buffer stock manager will attempt to keep cocoa bean prices within the designated range by purchases to or releases from the buffer stock and through a supplementary withholding scheme. *[Frederick Gray (202) 786-1769]*

REGIONAL DEVELOPMENTS

Western Hemisphere

U.S. Crop Production Declines

At the end of the 1986 harvest, total U.S. crop production appeared to be down about 7 percent from last year. High participation rates in commodity programs reduced area for major crops, but yields were excellent for some items, especially corn, soybeans, and rice. Production of feed grains, food grains, and oilseeds could fall almost 10 percent, with even larger declines for cotton and tobacco.

However, smaller crops will not raise market prices because of lower loan rates and large carryin stocks. Stocks for many crops will remain sizable during 1986/87, despite increased use. Low prices will increase domestic wheat use and exports, and stocks will decline slightly but continue large. Domestic feed grain use is not expected to change in 1986/87, reflecting the smallest cattle and hog inventories in over a decade. However, broiler and turkey production is likely to expand. The major changes in stocks will occur in cotton and rice, where lower production and increased domestic use and exports will lead to significant stock declines in 1986/87.

The move toward less production will continue, as evidenced by the recent

announcement of a voluntary paid land diversion program for 1987 feed grains, in addition to the regular 20-percent acreage reduction program announced in September. Farmers participating must divert 15 percent of their feed grain acreage base to conserving uses. The program appears attractive because diversion payments for corn are $2.00 per bushel, compared with the $1.82 loan rate. Most feed grain farmers will leave 35 percent of their acreage idle.

U.S. Farm Income Stable

Net cash income (gross cash income minus cash expenses) for 1986 will hold close to last year's record, but net farm income (total gross income including changes in inventory values minus total expenses) will decline. Cash receipts will decline as lower crop returns are only partially offset by increased livestock receipts. However, lower petroleum prices, interest payments, and feed costs reduced production expenses, and larger direct government payments provided relief to some financially-pressed farmers. Both reduced production expenses and high direct government payments are expected to continue in 1987.

Although higher hog and broiler prices raised retail meat prices, the gain in all food prices for 1986 may be about 3 percent, slightly above the increase expected for the Consumer Price Index.

Canadian Crops Record

Canada has harvested record wheat, barley, and rapeseed crops as a result of record area for wheat and excellent growing conditions. In addition, durum production was almost double last year's drought-reduced crop. However, like last year, a rainy fall delayed the harvest and resulted in crop quality below the 10-year average. The sheer size of the harvest means more high-quality, high-protein wheat for export, but Canada will again be burdened with lots of feed wheat.

Higher production of major grains and oilseeds will translate into increased exports, but gains will be limited by sluggish world demand and fierce price competition. The grain handlers' strike at Thunder Bay, Ontario during September came at a critical time and further limited Canadian grain exports. Canadian Wheat Board 1986/87 initial prices provide a minimum below which average export prices will not fall, unless the Board and the Government make an explicit policy decision to subsidize sales--that is, sell grain below the initial price and have the Government make up the difference.

Canadian Farm Income To Improve Slightly

Net realized farm income (gross income minus total costs) is expected to improve slightly in 1986. The Canadian situation is similar to that in the United States--lower crop receipts, higher livestock receipts, and falling production expenses.

Poor 1985 crops, low commodity prices, and increased imports are contributing to a smaller agricultural trade surplus in 1986. In addition, food prices have been running 5 percent above last year, compared to 1985's rise of only 3.7 percent, primarily because of higher meat prices.

U.S. Agricultural Exports Down

The value of U.S. agricultural exports to the Western Hemisphere dropped sharply in fiscal 1986 because of several factors: (1) low commodity prices; (2) a delay in importers' orders in expectation of even lower prices; (3) sluggish economic growth in Latin America due partly to oil price declines and continuing debt problems; and (4) larger harvests in Latin America that reduced the immediate need for imports.

U.S. agricultural exports to the Western Hemisphere 1/

Country	1984	1985	1986	1987 F
	Million dollars			
Mexico	1,967	1,566	1,115	1,400
Caribbean islands	827	771	752	750
Central America	396	358	334	350
Andean countries	1,600	1,277	904	950
Brazil	437	557	444	500
Other 2/	52	38	50	50
Canada	1,936	1,727	1,466	1,500
Total	7,215	6,294	5,066	5,500

F = forecast. 1/ Fiscal year. 2/ Guyana, Suriname, Fr. Guiana, Argentina, Paraguay, and Uruguay.
Source: U.S. Bureau of the Census and ERS estimates.

Sales to Mexico were down 29 percent, reflecting lower exports of coarse grains and oilseeds. Exports to Venezuela fell more than 30 percent as coarse grain sales declined. Sales to Brazil declined 20 percent as wheat purchases from the United States dropped 2.4 million tons. Sales to all other countries in the region were off another $100 million, but exports to the Caribbean and Central America did not fall as sharply, because drought conditions during 1985 and early 1986 increased import needs enough to offset major commodity price declines. Exports to Canada fell to their lowest in a decade as shipments declined for almost all major commodities--animal products, grains, fruits, vegetables, and cotton.

The outlook for fiscal 1987 is for some increase in U.S. exports to the region. U.S. exports of coarse grains and oilseeds to Mexico are forecast to increase because higher economic growth is expected to stimulate demand and stocks are very low. Increased U.S. wheat shipments to Brazil are forecast because of more competitive prices, and beef exports will also increase as a result of sales under the Dairy Termination Program.

Exports to Canada are forecast to expand nearly 10 percent, led by fruits and vegetables because of reduced Canadian production and a ban on South African imports. A provisional countervailing duty on corn of $1.05 per bushel, announced by Canada on November 7, will likely lower U.S. corn exports but not have a significant impact on total U.S. agricultural exports to Canada, because corn exports are small and declining.

U.S.-Mexican Farm Trade Reverses

The United States incurred its worst agricultural trade deficit with Mexico during fiscal 1986. U.S. agricultural exports fell over $400 million to $1.1 billion. At the same time, the United States imported a record $2 billion from Mexico because of sharp increases in the prices of coffee and tomatoes, and significant volume increases for live cattle, orange juice, and coffee.

Several factors contributed to lower Mexican import demand. Larger production of major crops increased domestic supplies. Falling oil prices hurt economic growth and exacerbated the debt situation. Poor economic performance has dampened domestic demand for some commodities and forced the country to limit imports.

The GSM-102 export credit guarantee program may have prevented further deterioration in U.S. agricultural sales to Mexico. The United States allocated Mexico credits of $900 million for fiscal 1986, up from $700 million last year. The GSM-102 program provided for the bulk of Mexican imports of major food categories during the year.

Drought Hits Central America

A prolonged drought has affected the Pacific coastline of Central America. The rainy season that usually starts in May or June did not begin until late August. The effects on agriculture were felt everywhere, but southern Honduras and northern Nicaragua were especially hard hit.

Losses in Honduras' basic grains harvest have been officially estimated at $4 million. In early August, the Government shipped $400,000 worth of grains to meet the affected population's immediate needs, and has committed itself to further emergency shipments. Relief agencies have reported that up to 300,000 people are threatened with famine. In El Salvador, the Government estimated that almost one-fifth of the corn harvest has been lost. In Nicaragua, field losses reduced the corn, beans, rice, and sorghum harvests.

In response to the drought, Central American governments have decided to invest nearly $5 million in a program to expand irrigation and drainage. Some 400,000 hectares in Central America are irrigated, only a tenth of the cropland and 15 percent of the potential irrigated land. The largest percentage, 37 percent of the total, is in Guatemala, and the smallest (7 percent) is in El Salvador, even though 85 percent of El Salvador's land is cultivated.

If this program is successful in expanding irrigation, it could increase agricultural exports from the region. The most highly irrigated crops are sugar cane (26 percent), pastures (15 percent), and rice (10 percent). About 77 percent of the irrigated land is in the hands of private farmers, mainly sugar and

rice planters and stock breeders. Almost three-quarters of the region's exports are agricultural, and five products--coffee, sugar, bananas, cotton, and beef--account for 62 percent of the total. *[Western Hemisphere Branch (202) 786-1663]*

Western Europe

Dollar Decline Pressures EC Budget

European Community (EC) budget pressures and consequent adjustments will be the notable events in Western European agriculture in 1986/87. Beef and dairy programs are the most likely to change. Changes in grain and oilseed policies, in which the United States has more interest, are less likely in 1986/87, even though their program costs will also increase substantially.

The decline of the dollar has seriously increased EC budgetary problems. EC Council President Delors recently announced that the EC will be 3 billion European Currency Units (ECU) in deficit for calendar 1987, an extraordinary forecast before the year has even begun for a budget that totals 24 billion ECU (1ECU = $0.90).

The lower dollar reduces the price of U.S. commodities in terms of European currencies, thereby requiring increased EC budget outlays on the differences between import levies and export subsidies, which bridge the gap between lower world prices and higher EC prices. For example, maximum wheat subsidies have risen from 36 ECU per ton in August 1985 to 132 in October 1986. The costs of deficiency payments for commodities, such as soybeans, for which producers receive the difference between market prices and a "target" price, have also risen.

Nonetheless, EC budget difficulties are not likely to precipitate a radical modification of the Common Agricultural Policy (CAP) favorable to the United States. Export subsidies and variable import levies, to which the United States objects, will probably continue because farm incomes, which declined steeply in 1985, still lag nonfarm incomes by a considerable margin. Furthermore, a German parliamentary election is at hand.

Among the likely EC adjustments to budget pressures are a reduction in EC milk delivery quotas in 1987 beyond those already planned and a reduction in effective support of internal beef prices. However, the reduction in beef support may not be possible within the next round of EC price setting in the spring of 1987. The dairy and beef sectors provide the greatest prospect for budget saving; these sectors comprised 45 percent of EC price support appropriations in 1985. Furthermore, there is little prospect of selling current surpluses on world markets. Grains, with which the United States is most concerned, comprised only 12 percent of support appropriations in 1985 and can be sold on world markets, albeit at very low prices. (Recent EC sales to the Soviet Union were reported at only $60 per ton.)

EC Surpluses Limit U.S. Grain Exports

Lower U.S. grain prices will not affect EC imports because variable levies will maintain high prices to EC users. Imports from the United States will be reduced in fiscal 1987 and domestic use of grain will be maintained, despite declines in EC production of both wheat and coarse grains due to drought. Although EC wheat production is down 1 percent and coarse grain 8.5, domestic use is forecast up 1.7 percent for wheat and down just 2.3 for coarse grains.

The EC Commission has helped maintain domestic use by encouraging on-farm feeding of grain--particularly wheat--through temporary halts in intervention buying, more stringent grain quality standards, and a new co-responsibility levy (production tax) which does not apply to on-farm use. With production down and domestic use encouraged, ending stocks of both wheat and coarse grains will drop--3.4 percent for wheat and 14.7 for coarse grains--but still remain large.

The value of U.S. exports of grains and feeds to the EC-12 is forecast to decline in 1986/87 from the $1.5 billion exported in 1985/86. Volume declines are forecast in all major categories. These forecasts continue recent trends. U.S. grains and feed exports to Europe have been falling steadily as Europe has become more self-sufficient. While remaining the second largest U.S. export in value, grains to Europe have shrunk steadily

from $3.6 billion in 1981/82 to a forecast of less than half that for 1986/87.

Soybean Export Value To Slip

The total value of soybean and soybean product exports to the EC-12 is expected to decrease slightly in 1986/87, although volume of soybeans is forecast up. Several offsetting factors have formed the outlook for soybeans and products: a trend towards larger EC oilseed production, large world supplies and low prices for soybeans, and current low meal prices relative to grains. The low prices encourage EC imports of soybeans and products because they are not supported by variable levies, as grains are.

Nearly stable U.S. exports of soybeans to the EC reflect anticipations that low prices will stem a downward trend in EC purchases, a trend which has accompanied increased domestic production of oilseeds. Total imports of soybeans have dropped from 16 million tons in 1981/82 to 12.9 in 1985/86 and will drop again in 1986/87. U.S. exports of soybeans were 8.9 million tons in 1985/86 and will be close to that this year. But value will drop because of lower prices.

U.S. Policy Boosts Cotton and Tobacco

U.S. cotton exports to the EC-12 could double in volume from fiscal 1986, the poorest year for EC purchases of U.S. cotton in the 1980's. Passage of the Food Security Act of 1985 has allowed U.S. upland cotton to be sold at competitive prices, driving the world cotton price in August 1986 to a recent low of 37.17 cents a pound ("A" index). Since August, however, prices have been higher and exports lower than initially expected. Nonetheless, U.S. exports to the EC are still forecast up substantially.

A volume increase of over 10 percent is forecast for U.S. sales of tobacco to Western Europe, with the major gains expected in Switzerland and the Netherlands, where the U.S. market share could rise significantly. The likely positive sales effect of a weakened dollar should be augmented by the lower U.S. tobacco auction prices, which have resulted from a legislated 17-percent reduction in the tobacco support price. Also, this year's tobacco program features a sell-off of stabilization stocks from earlier crops at catalogue-value prices, and the quality is superior to many kinds of competing tobaccos. Purchasers in high-income Western European countries, especially those with low stocks, are likely to buy the competitively priced, high-quality tobacco. *[Western Europe Situation and Outlook Section and Gene Hasha (202) 786-1716]*

USSR

With the grain harvest exceeding earlier expectations, Soviet agricultural production for 1986 is expected to be higher than last year's. Near record nongrain feed and livestock are prime contributors to the rosy forecast. Slight increases in potato, vegetable, and fruit output support the upturn. However, sugarbeets, cotton, cottonseed, and sunflowerseed probably did not fare as well as last year.

Damage from dry weather during the summer set back grain production only slightly, and continued dry weather in the fall allowed timely harvesting. Reports in the Soviet press indicate good yields with an increase in the production of grain and high quality wheat procurements (*Izvestia*, 22 and 23 October, 1986). Grading standards for wheat were lowered for this year's crop, so the quality may be less impressive than Soviet statements indicate. Nevertheless, the overall grain crop is expected to exceed last year's.

The success story is continued in the livestock sector, where Gorbachev's program to improve efficiency seems to be paying off. Meat, milk, and egg production are expected to reach records because of increased output per head. Inventories of cattle and hogs in the socialized sector are at an alltime high. Although poultry inventories are roughly unchanged from last year's, poultry meat production is up more than 10 percent.

Grain Production Data Published

In keeping with Gorbachev's policy encouraging more openness, the Soviets published annual grain production data which had been withheld for the past 5 years. The newly revealed figures include USSR grain production, yield and procurements by grain type, and grain procurement by republic for 1981-85. The data confirm USDA estimates

Soviet grain production

Year	Wheat	Coarse grain	Total grain
	Million metric tons		
Average			
1961-65	64.2	57.2	130.3
1966-70	90.2	67.7	167.6
1971-75	88.9	82.3	181.6
1976-80	99.7	94.9	205.0
1981-85	77.9	90.7	180.3
1981	81.1	69.4	158.2
1982	84.3	91.8	186.8
1983	77.5	101.9	192.2
1984	68.6	90.5	172.6
1985	78.1	100.0	191.7

Source: Narodnoye Khozyaistvo SSSR v 1985.

that had put Soviet grain production for that 5-year period close to the 1971-75 level. Rather than increasing towards the planned target of 238-243 million tons, grain output fell 12 percent from the previous 5-year average.

The relatively good grain harvest dampens the prospects for Soviet grain imports during the 1986/87 marketing year. Forecasts show Soviet wheat and coarse grain imports in the 1986/87 marketing year at their lowest since 1978/79. Other factors affecting Soviet grain purchases are better quality domestic wheat, and a good forage harvest, and the drop in hard currency earnings.

In September, the Foreign Trade Ministry announced plans for a major restructuring of Soviet trade methods, giving more autonomy in trade to 20 ministries and 70 state enterprises. The trade reorganization will have little effect on agricultural trade, however, since trade of all raw materials remains under the jurisdiction of the Foreign Trade Ministry.

U.S. wheat exporters suffered as the Soviets ignored lower U.S. prices offered in August under the Export Enhancement Program. For the second time, the USSR failed to fulfill the Long Term Grain Agreement requirements for wheat purchases of at least 4 million tons, falling short by over 3.8 million tons. According to estimates, Canada, Australia, and the EC increased their shares of Soviet wheat imports during October/September 1985/86, while Argentina and U.S. shares fell about 15 percentage points. Prospects for renewed Soviet interest in U.S. wheat remain dismal, with no Soviet purchases since November 1985. *[Carolyn E. Duff (202) 786-1710]*

Eastern Europe

Crop production turned in another good year; grain output was the second best ever and oilseed production was also up. Livestock continued to lag, however, with meat and milk output unchanged and egg production up only slightly. Poland had an excellent year--grain and rapeseed production reached records, but a drought devastated Hungarian agriculture.

Large debt repayment obligations continue to restrict the region's imports. Grain imports will be lower in 1986/87, and Hungary, Eastern Europe's largest agricultural exporter, should see a decline in its farm trade surplus because of the drought. The Soviet Union has stepped up its imports of agricultural goods from the region following West European restrictions on food imports from Eastern Europe because of the Chernobyl nuclear accident.

Crop Output Up, Livestock Lags

Grain production in Eastern Europe, minus Albania, is estimated at 111.2 million tons, the second largest crop ever and 4 percent above 1985's outturn. Production was higher in every country except Czechoslovakia and Hungary. Poland had a record crop, making 1986 the sixth straight year of above-average grain production.

Nongrain feed harvests were also good, except in Hungary, and supplies for the 1986/87 winter will be improved over 1985/86. Harvested grain quality is excellent. Dry weather during the harvest offset the region's chronic lack of drying facilities and, in the southern countries, allowed a higher-than-usual percentage of second-crop corn to mature. Rapeseed harvests in Poland and the GDR were records, contributing greatly to a 9-percent rise in oilseed (rapeseed, sunflowerseed, and soybean) production. Poland will again export rapeseed, but the small world market will limit sales.

The livestock sector continues to hold back agriculture, however. Meat output this year will be unchanged at just over 12 million

tons, and milk output is forecast to fall 2 percent to 44.5 million tons. The December 31 livestock census is expected to show no significant increase in numbers. Romania's livestock situation remains the most desperate in the region because of poor feed quality and supplies, and excessive exports.

Debt and Good Crops Depress Imports

Eastern Europe's debt crisis will again overshadow trade developments in 1987. Poland and Romania suffer most from foreign debt. These two countries have had to reschedule into the 1990's debt payments falling due this year and next, debts that were already rescheduled in the past.

Total grain imports in 1986/87 are forecast at 8 million tons, compared with 9.3 million in 1985/86. Imports of soybeans are forecast at 790,000 tons, well below the 850,000 of 1985/86, but soybean meal imports should be unchanged at 3.8 to 3.9 million tons.

The redirection of the region's livestock exports away from the West and toward the Soviet Union will continue in 1987. Restrictions on meat imports from Eastern Europe imposed by the EC and other countries following the Chernobyl accident cut off an important hard-currency market. Hungarian and Polish officials have announced that the Soviet Union will step up purchases of meat in response to the lost Western markets, and may well extend similar treatment to other East European meat exporters.

U.S. Farm Exports To Rise Slightly

Debt, insufficient exports, and good 1986 crop production will hold U.S. farm exports to Eastern Europe to only minor improvement at least in 1987. Also, the United States continues to face pressure from competitors. Argentina, for example, will supply Hungary 400,000 tons of soybean meal pellets annually from 1986 to 1990. This reportedly represents 40 percent of Hungarian meal needs. Hungary also has a 1986-90 trade agreement with China providing guaranteed imports of Chinese soybeans, soybean meal, and cotton.

Crop Prospects Good for 1987

Prospects for 1986 fall-sown crops are good. Recent rains in the southern countries improved a very dry situation and allowed tilling and sowing to proceed. Dry conditions will hinder fall sowing and germination only in Czechoslovakia and Hungary. Livestock production will muddle through in 1987. Poor feed supplies in Czechoslovakia and Hungary will be offset in the other countries, but low profitability, low feed quality, and slack export demand will hold off economic recovery until 1988. *[Robert Cummings (202) 786-1710]*

Australia

Australian farm income will likely drop by one-tenth in 1986/87, the third straight year of decline. While prices received by farmers have risen about 15 percent since 1980, prices paid have jumped over 50 percent. The sharp decline in the value of the Australian dollar during 1985 and in the first half of 1986 helped support agricultural product prices, but it also raised farmers' costs. The Australian dollar is likely to remain low through 1986/87.

The 1986/87 Preliminary Guaranteed Minimum Price for Australian Standard White (ASW) wheat is $A130.62 (US$85), down from $A149.87 (US$102) last year. The Government of Australia will probably have to make substantial payouts for the 1986/87 crop, for the first time since 1972/73, to support the guaranteed price. Nevertheless, net returns to farmers will fall a fifth.

Prices of coarse grains, cotton, and oilseeds, which are not supported by government guarantees, are declining sharply. Sugar prices are expected to recover somewhat because of reduced Cuban production. Cattle prices are following U.S. prices upward. Strong wool prices relative to sheepmeat prices will encourage expansion of merino herds. The new dairy marketing arrangements are being phased in slowly, allowing milk returns to rise slightly this year.

Grain Area, Production Slip

Low prices and poor early-season weather reduced winter coarse grain area 15 percent. Production may decline 18 percent. Wheat area fell only 3 percent, and the crop may be near last year's 16 million tons. Spring (September and October) rains significantly improved yield prospects in all states except Queensland.

Reduced plantings of winter crops provide more area for summer crops. However, soil moisture and irrigation water supplies are low in parts of the major growing region of northern New South Wales- Queensland. Plantings will depend on weather developments and relative prices.

Meat Exports Larger

Largely because dry summer and fall weather forced animals to slaughter, Australian beef and veal exports were up 13 percent in volume in the first 9 months of 1986. Shipments rose to all major markets, with those to the United States up 12 percent. The pace of exports has slowed in the last 2 months.

Mutton exports jumped 53 percent, mainly because of larger sales to Iran and Japan. Lamb exports rose 31 percent because of larger sales to the Middle East and the United States. *[Sally B. Byrne (202) 786- 1611]*

Japan

U.S. Farm Exports Decline

U.S. agricultural exports to Japan in fiscal 1986 fell to $5.1 billion, 9 percent below the previous year and the lowest since 1979. Lower U.S. export prices for grains and oilseeds and reduced shipments of coarse grains and cotton were primarily responsible.

U.S. sales of coarse grains declined 15 percent to 11.6 million tons, the lowest since 1979. Competition from Chinese corn, Argentine sorghum, and South African corn caused the U.S. share of Japanese coarse grain imports to decline from 69 percent in fiscal 1985 to 57 last year. U.S. cotton shipments fell almost 50 percent from fiscal 1985, hurt by high U.S. prices and competition from China, Pakistan, Australia, and other suppliers. Soybean exports were up 4 percent to 4.2 million tons, helped by reduced Brazilian supplies.

In contrast to steady or declining exports of many bulk commodities, U.S. exports of high- value and processed products to Japan made impressive gains in fiscal 1986, helped by the weaker dollar. The value of U.S. exports of animals and animal products rose 23 percent. Beef and veal exports surged 22 percent to 100,000 tons, almost triple the 6,900- ton increase called for in the 1984 U.S.- Japan understanding. Pork sales were up 50 percent from fiscal 1985's low level to 12,000 tons. U.S. poultry meat exports jumped 41 percent to a record 69,000 tons. In addition, U.S. exports of citrus fruit, primarily grapefruit, and frozen vegetables were also strong.

U.S. farm sales to Japan in fiscal 1987 are expected to increase slightly. Volume gains for coarse grains and cotton are expected as U.S. prices become more competitive as a result of new U.S. farm legislation. A recovery in sales is already evident: U.S. cotton exports in August and September were the highest in 16 months, and September corn shipments (934,000 tons) were the largest in 6 months.

Japan's Farm Output Declines

The value of Japan's agricultural output is expected to show a slight decline in 1986 because of lower crop production. Although wheat output is forecast at 876,000 tons, the largest harvest in 18 years, the rice crop (the most important crop in Japan) is estimated to be down marginally from last year. Livestock output is expected to remain about the same in 1986, after almost continuous expansion over the past decade.

U.S. Rejects Rice Complaint

On October 23, the United States rejected a petition (under Section 301 of the 1974 Trade Act) submitted by the American Rice Millers Association in September against Japan's restrictions on rice imports. According to the petition, U.S. rice exports would expand and world rice prices would rise significantly if Japan dismantled its restrictive rice policy.

In rejecting the petition, the United States will urge Japan to discuss its rice policy in the new round of multilateral trade negotiations. If Japan does not respond, the United States plans to reexamine the issue in mid- 1987. *[Lois A. Caplan (202) 786- 1611]*

Middle-Income East Asia (South Korea, Taiwan, Hong Kong)

U.S. farm exports to the region decreased 11 percent in fiscal 1986 to $2.78 billion because of lower prices and reduced exports of cotton and coarse grain. Prices for most bulk commodities are expected to remain low in fiscal 1987, and should stimulate significant increases in U.S. exports. The total value of farm exports to the region is expected to increase about 10 percent.

U.S. Cotton Exports To Increase Sharply

U.S. cotton exports to the region decreased 68 percent in fiscal 1986 to 130,000 tons because of high prices. Since August, when U.S. cotton prices became more aligned with competitors' prices under provisions of the 1985 Food Security Act, sales have picked up quickly. U.S. cotton exports to the region are expected to increase sharply in fiscal 1987.

Coarse Grain Exports Expected To Rise

U.S. coarse grain exports to the region decreased 16 percent to 4.24 million tons in fiscal 1986, because of stepped-up competition from Thai corn and Canadian and Australian feed wheat to South Korea, and South African corn, New Zealand barley, and Thai sorghum to Taiwan. U.S. coarse grain exports to the region are expected to improve somewhat in fiscal 1987 because of more competitive U.S. prices, reduced supplies of Thai corn, and larger livestock inventories.

Crop Production Down

Two typhoons in September caused some crop damage, and production in 1986 is estimated to decline 1 percent for South Korea and 8 for Taiwan. Production of rice, the most important crop in the region, is forecast to decline 5 percent from 1985's 5.6 million tons in South Korea, and from 1.97 to 1.92 million in Taiwan. Despite reduced rice production, South Korea, which was a rice-deficit country throughout the 1970's, is not expected to import rice. Taiwan still has surplus rice stocks.

Livestock Numbers Remain High

Livestock production remains steady in the region. Taiwan's hog industry is expanding because of high prices, low feed costs, and strong export demand. According to a July survey, hog numbers had increased 6 percent since March.

In South Korea, hog producers are benefiting from the highest prices since 1982 and low feed costs. Hog inventories are expected to expand during the remainder of 1986. Pork is South Korea's principal animal protein source, accounting for three-quarters of the country's red meat consumption. The Government protects this industry through a ban on imports, administered since 1980. *[Sophia Wu Huang (202) 786-1611]*

China

1986 Grain Situation Improved

Output of wheat, rice, and coarse grain is forecast to be around 297 million tons, 11 million over 1985/86 but 12 million under the 1984/85 record. Area increased 1 percent over last year while yields advanced 2 percent. A record summer grain harvest, along with good growing conditions for spring wheat, should result in a record wheat crop of 89 million tons.

Early rice output rose over 3.5 million tons compared with last year, but the 35-million-ton crop is only average compared with those of the last 5 years. Dry weather constrained yield increases for intermediate and late rice crops, and total output will be around 120 million tons, almost a 2-percent increase over 1985 but still below the 124.8 million of 1984.

The same dry weather retarded coarse grain yield growth in south China, in the Northwest region, and in the North China Plains. Moreover, heavy rains in the Northeast region reduced coarse grain yields there. Coarse grain area is estimated to have expanded about 750,000 hectares but the effect of dry and wet weather limited output to 88 million tons, only 6 million tons over 1985 and 8 million below the 1984 record.

China Continues To Export

In marketing year 1986/87, China continues to aggressively market grain, cotton, and oilseeds. Scarce foreign exchange

has driven business firms to export agricultural commodities and restrain imports. China's imports of wheat are forecast to be 7 million tons, about the same as last year. The sum of corn and barley imports will again be about 700,000 tons. Rice exports of around 1 million tons are anticipated. In spite of reduced coarse grain production in 1985 and an average crop in 1986, corn and sorghum exports are forecast to continue at around 6 million tons. Cotton exports are forecast to hold steady at 600,000 tons. Soybean and soybean meal exports should drop a little from last year.

U.S. agricultural exports to China in fiscal 1985/86 declined 63 percent from 1984/85 to only $88 million. Major commodities exported in 1985/86 were cattle hides, $17 million; wheat, $19 million; and soybeans $38 million.

Outlook for 1987 Crops

Area sown to grain crops likely will expand in 1987. However, dry fall weather in major winter-wheat-growing regions may have limited sown area and increased the likelihood of poor stands. State procurement officers are now authorized to advance 20 percent of cash payments to farmers who contract to sell their grain to the State. In addition, these households will be allowed to purchase 60 kilos of chemical fertilizer and 30 kilos of diesel fuel for every ton of grain sold to the state. Both of these inputs were in short supply in 1986. *[Frederick W. Crook (202) 786-1616]*

South Asia

Food Grain Import Demand Likely To Fall

Record or near-record harvests of wheat and rice are estimated in Bangladesh, India, and Pakistan in 1986/87 following generally favorable monsoon rains, but adverse weather has sharply reduced rice production in Nepal and Sri Lanka. South Asian wheat imports are forecast to decline 15 percent to about 2.9 million tons in 1986/87 (July/June), with a large drop in Pakistan's needs more than offsetting larger imports by Bangladesh, Nepal, and Sri Lanka.

Reduced sales to Pakistan are expected to lower U.S. wheat exports to the region 35 percent to 1.2 million tons. India and Pakistan will have substantial wheat surpluses, and their combined exports are forecast at 800,000 tons. Regional rice imports are forecast to rise 40 percent to more than 600,000 tons in 1987 because of larger requirements in Bangladesh, Nepal, and Sri Lanka. Rice exports by Pakistan and India are expected to drop 15 percent to 1.1 million tons in 1987, but Indian sales could expand because of a growing rice surplus.

Edible Oil Imports May Rise

South Asian edible oil imports are forecast to rise 1 percent to 2.3 million tons in 1986/87 (October/September). Reduced stocks and a second consecutive poor peanut crop are expected to boost India's imports from 1.15 million tons in 1985/86 to 1.25 million in 1986/87. Pakistan's imports are forecast at 850,000 tons, near last year's record, as large stocks offset growth in domestic demand and lower production of cottonseed oil. Lower-priced palm oil is forecast to maintain a dominant share of the region's oil market in 1986/87. However, soybean oil's share is likely to rise from the 10-year-low reached in 1985/86 because of reduced stocks in India and continued concessional credit sales to Pakistan. South Asian soybean oil imports are forecast to rise about 12 percent to 615,000 tons in 1986/87, while palm oil imports are forecast to remain near 1.5 million tons.

Cotton Output May Decline

Cotton production is expected to decline from 1985/86 records in both India and Pakistan in 1986/87, because of weakening prices and poor weather in some cotton-producing areas of India. India's 1986/87 crop is estimated at 7.8 million bales, down 7 percent, and Pakistan's crop is estimated at 5.3 million bales, down 3 percent. Pakistan's exports are expected to drop from a world-high 3.1 million bales in 1985/86 (August/July) to about 2.7 million in 1986/87, primarily because of increased competition from U.S. cotton, while Indian exports are projected to rise 80 percent to about 600,000 bales. However, because of burdensome stocks, both India and Pakistan may opt for export pricing adjustments and more aggressive marketing to boost exports. *[Maurice R. Landes (202) 786-1614]*

Southeast Asia

Production of Cereal Crops Stable or Lower in Indonesia and Thailand

Indonesia's 1986 milled rice production is expected to only match 1985 output of 26.5 million tons, following a decade of annual increases. For the first time since the early 1970's, the producer rice support price was not increased, although fertilizer subsidies were continued. The Government plans to phase out the fertilizer subsidy eventually. The burdensome level of government rice stocks may decline to 2.5 million tons by year's end, aided by calendar 1986 exports of about 300,000 tons. Overall per capita consumption of grain will continue to increase, based on greater intake of domestic corn and imported wheat. Current government policy seeks to boost domestic output and use of secondary food crops such as corn and soybeans, and to keep rice production gains consistent with population growth.

Poor weather and low commodity prices have kept Thailand's 1986 corn and rice production down. Rice output is estimated to be down 300,000 tons from 1985 to 12.7 million. Rice exports may drop 9 percent to 4 million tons in 1987 due to the increased competition for shrinking export markets. Corn production is estimated at 4.2 million tons, 18 percent below the 1985 record. This may result in 2.9 million tons exported in 1986/87, nearly 1 million less than in 1985/86.

Vegetable Oil Production Up

Malaysia's 1985/86 (October- September) crude palm oil output reached an estimated 4.77 million tons, 25 percent higher than in 1984/85. Despite higher export volume in 1985/86, the extended slump in palm oil prices is having a severe impact on the Malaysian economy. Although palm oil processing margins are poor, the brunt of the financial loss falls on oil palm plantations and the Government, which assesses duties on exports of palm oil and palm oil products that have been declining in calendar 1986. Crude palm oil production in 1986/87 will rise to an estimated 5 million tons, reflecting higher average yields and expanding mature crop area. Despite recent market recovery which boosted domestic palm oil prices to 1986 highs, the medium term outlook for relatively low vegetable oil prices may cause the Government to review its ambitious palm oil expansion plans.

Recovery of Philippine coconut production and lower coconut oil prices have led to a surge in Philippine coconut oil exports during 1986. Compared with January- August 1985, exports have more than doubled to 803,000 tons; however, earnings have increased only 8 percent. Coconut oil exports in 1986 are forecast to reach a record 1.2 million tons, with the United States accounting for nearly half of total shipments. *[J. Albert Evans (202) 786-1614]*

Sub-Saharan Africa

Coarse Grains Surplus Causes Problems

Following another year of favorable weather, many Sub- Saharan African countries produced a second consecutive bumper grain crop in 1986. In many cases, this led to excessive stocks of corn and sorghum, severely taxing countries' storage capacity and finances. This represents a dramatic turnaround from the widespread food emergency of 1984 and early 1985, with drought- induced shortages in much of the continent. Nevertheless, some localized food deficits persist, reflecting warfare, poor logistics, and foreign exchange shortages that inhibit better distribution. Furthermore, exports outside the region are constrained by the current world glut of grains and African countries' lack of competitiveness.

The development of large surpluses is partly related to the previous drought crisis and special efforts to aid recovery, combined with the unusual occurrence of 2 years of good weather. There were many special efforts to increase seed and input distribution in affected countries, often with the help of donors, and to provide incentives in the form of higher producer prices or guaranteed purchases by government marketing agencies.

Where there were no government- supported prices, market prices generally rose to reflect serious shortfalls. In addition, large imports of grains, including food aid, often exceeded needs or arrived late, and led to large carryovers into 1986. Thus, there have not always been space or funds available to handle incoming harvests. Some

countries are responding by making adjustments in pricing and marketing policies, and some are exporting, although frequently at a loss.

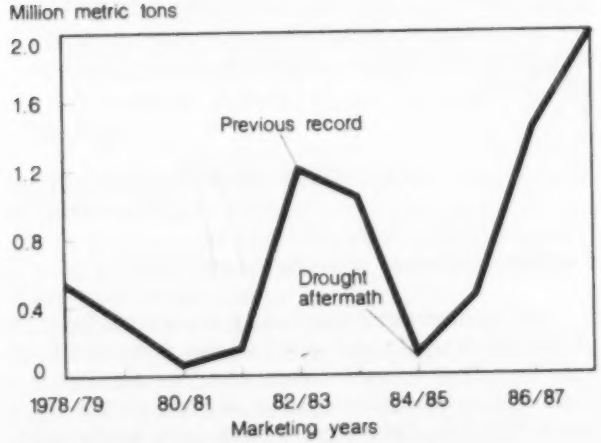
The largest surpluses are in Zimbabwe, Kenya, and Sudan. The first two are exporting significant amounts of corn, while Sudan is not exporting any sorghum because of a government ban. Although Malawi's production of corn was down slightly in 1986, it had sufficient carryover stocks to still be able to export this year. There are also smaller surpluses in West Africa, Benin, Cote d'Ivoire, and Togo, and in some Sahelian countries, including Burkina, Mali, and Niger.

Zimbabwe Discourages Production

Zimbabwe opened its 1986/87 marketing year with corn stocks of more than 1.4 million tons, a result of a record 1985 harvest, low domestic demand, and disappointing export sales. Smaller stocks of sorghum and millet are also proportionately large, stretching resources. The 1986 corn harvest was also good, and stocks could increase to over 2 million tons by the end of the marketing year in March, depending on exports.

Domestic sales by the Grain Marketing Board are currently about 700,000 tons per year, down nearly 50 percent from the peak in the drought year of 1983, while this year's intake should reach 1.7 million tons. Rural demand is down significantly, as farmers have increased their retentions.

Zimbabwe's Corn Stocks Soar



1987/88 forecast

With storage charges estimated at over $40 per ton, including $25 just for interest, and a high budget deficit, the Government is trying to discourage plantings for the upcoming crop. Producers selling more than 20 tons will only receive the Government-guaranteed price of $108 per ton for up to 50 percent of their 1986/87 deliveries, and $60 per ton for the balance.

Zimbabwe's landlocked position and high transport costs constrain exports to its immediate neighbors. In 1985/86, corn exports were under 300,000 tons, despite an exportable surplus of at least 1 million. Nearly all the exports went to other African countries, and some of these sales were financed by outside donors because of customers' lack of foreign exchange.

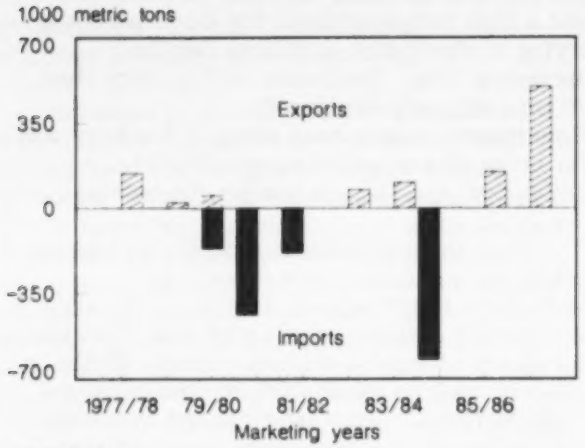
During 1986, South Africa purchased 200,000 tons of white corn, even though it has been exporting yellow corn, and there were reports of sales of 100,000 tons to Iran. There is potential for further sales to South Africa, but these may not materialize because of strained relations. Zimbabwe's corn exports during 1986/87 are unlikely to exceed 500,000 tons.

Kenya Exports Corn

Faced with a second consecutive record corn harvest and inadequate storage capacity, Kenya began exporting corn during 1986. However, much of this was yellow corn imported from Thailand during the 1984 drought. For the 1985/86 marketing year which ended in June, Kenya exported 150,000 tons, mainly to Korea, Malaysia, Singapore, and Jordan. The National Cereals and Produce Board (NCPB) is also selling old stocks of U.S. yellow corn, imported under the Whitten program during the drought crisis of 1984. However, this is being sold domestically for feed.

The large intake of corn has created problems for the NCPB. There were some instances of late payments to farmers for the 1985 crop, and more difficulties are expected for this year's crop, as the producer price was raised 8 percent. Kenya plans to expand storage, but this will not help current crops. The problem of production fluctuations is quite pronounced in Kenya, so that in recent

Kenya's Corn Trade Fluctuates



1986/87 forecast

years it has entered grain markets both to buy and sell. For 1986/87, Kenya may export up to 500,000 tons of corn, some of which will be swapped for wheat.

Scope Limited for Other Exporters

The administrative burden and high costs of maintaining above-normal stocks will remain a problem in Sub-Saharan Africa through 1986/87. Only two other countries in the region have been significant coarse grain exporters in the past. Sudan frequently exported sorghum up to the devastating drought of 1984, while Malawi has regularly exported small amounts of corn over the last 4 years.

This year, Malawi has about 100,000 tons available, similar to last year, but its practical outlets are restricted to neighboring countries. Not only are import needs low this year--except for Mozambique, which depends on donor assistance--but there is also stiff competition from Zimbabwe. Malawi has not raised the producer price for the last 2 years in an effort to increase production of other crops.

Sudan made a striking recovery from drought in 1985 with a record-breaking sorghum harvest. However, with serious local shortfalls in parts of the country, the Government banned exports. While prices have fallen dramatically in much of the country, shortages persist in urban areas in the south, where warfare restricts movement of food. For 1986, another good crop is being harvested, and this could double the 500,000 tons carried in from last year. Most of the stocks are privately held. Growing numbers of refugees in the capital--as a result of the war in the south--are increasing food needs, but donor assistance will be required to feed them because of Sudan's severe financial limitations. The resumption of exports to Saudi Arabia, of about 100,000 tons, is possible.

The lack of markets is also a constraint on potential exports from West Africa. In 1984 and early 1985, small surpluses in coastal West African countries could be used in the Sahel to the north where crops were reduced by drought. For example, Ghana exported small amounts of corn to Burkina and Mali (in exchange for U.S. P.L. 480 rice) in both years. Currently, the Sahelian countries have little or no need for coarse grain imports.

In both Mali and Niger, where government marketing boards normally handle relatively small quantities of grain, good harvests and unprecedented stocks in 1985 and 1986 have strained limited resources. Farmers increased sales in both countries because government prices were higher than those on the free market. Neither board can easily dispose of its large supplies, as market prices remain low.

Virtually all the African countries with surpluses have expressed interest in trilateral transactions to supply neighboring countries. Donors either purchase coarse grains or exchange wheat or rice for shipment to a third country. Many donors, including Australia, the EC, the United States, and the World Food Program, did this in 1985/86. With the exception of a few countries, however, coarse grain needs are limited, and these transactions are not likely to significantly reduce surplus stocks in the region. *[Peter A. Riley (202) 786-1680]*

COUNTRY BRIEFS

Kenya Coffee Output Recovers; Foreign Exchange Earnings Rise

With improved rainfall, Kenya's coffee yields were up 25 percent in 1986 and output rose to 118,000 tons. When the International Coffee Organization's (ICO) export quotas were lifted in February, Kenya took advantage

of this marketing opportunity and exported a record 121,000 tons of Arabica coffee during the 1985/86 marketing year. The move occurred at a propitious moment, as coffee export prices were 30-60 percent above 1985 because of the 50-percent drop in Brazil's output.

Kenya's coffee export price reached $2.60 a pound early in 1986, and earnings from exports are estimated slightly above $500 million, the record set during the 1977 coffee boom. As a result, total agricultural exports in 1986 could exceed the previous high of $841 million in 1977.

Despite previous record exports of 102,000 tons in 1981/82, Kenya's coffee output has been expanding faster than exports, which resulted in stocks of 75,000 tons in 1983/84 valued at $147 million that had to be financed by the Coffee Board.

Kenya has expanded its coffee industry since 1977, when 84,000 hectares were harvested. For 1987, the U.S. Agricultural Attache, Nairobi, reports that area will be 138,000 hectares. Kenya conducts its own research on coffee, and this year a new disease-resistant variety, Ruiru II, was made available to farmers. Export and other taxes have recently been increased, however, and farmers complain of higher production costs which reduce net returns, even with higher world prices.

Kenya has done better in cash/export crop production than in food crops. Its index of cash/export crop production was 131 in 1985 (1976-78 = 100), one of the highest in Sub-Saharan Africa. For food crops, however, Kenya's index of production was only 114 in 1985, slightly below the average of 119 for all of Sub-Saharan Africa. *[Larry Witucki (202) 786-1680]*

Barley Sales Enhance U.S. Exports to Saudi Arabia

U.S. agricultural exports to Saudi Arabia have been enhanced by the Export Enhancement Program (EEP) for barley. In fiscal 1987, a rebound in the value of U.S. agricultural exports to over $350 million is forecast. Initial estimates forecast lower total 1986 exports, but barley shipments commenced during the summer following purchase of the 750,000 tons provided under the EEP. The price averaged $64 per ton.

By September, actual shipments lagged behind purchases, and barley exports in fiscal 1986 totaled 486,598 tons for $36.2 million, up $32.4 million over 1985. This gain partially offset declining sales of some other commodities, leaving the loss for 1986 at 12 percent, only half the loss reported through June, prior to the upsurge in barley shipments. The value of $335 million was a third below the 1981 peak, but Saudi Arabia ranked 17th among foreign markets.

The decline in U.S. sales of wheat and flour--related to Saudi self-sufficiency--occurred before 1985, so most of the 1986 decline came in other items. Rice sales declined 13 percent to 188,000 tons, and lower prices--a result of intense Thai competition--showed a 26-percent decline to $82.6 million. Exports of beef and poultry were down a third to $10.3 million because of lower EC prices. Shipments of apples were only a third of fiscal 1985's $17 million, as Chile and the EC took a much greater share of the market.

Greater Saudi purchases of Malaysian palm oil, and lower prices, trimmed the value of U.S. corn oil shipments 14 percent. Rising Saudi imports of pistachios and almonds from Iran contributed to a 42-percent U.S. decline in almond sales to $3.2 million. Gains in U.S. soybean meal exports were slowed by increased competition from the EC and Asian suppliers, and a shift to the EC and local suppliers trimmed U.S. seed sales 50 percent. *[John B. Parker (202) 786-1680]*

Nigeria's Foreign Exchange Auction

Nigeria took an important step toward economic reform in September when the country's first foreign-exchange auction led to an effective 66-percent devaluation of the naira against the dollar. The naira fell from about N1 = $1 to N4.6 = $1, but has since stabilized at about N4 = $1.

The official rate will continue to apply to imports for which confirmed letters of credit existed prior to September 23. There will be no extension for these documents, most of which expire on December 31, 1986. This auction means that anyone who can purchase

foreign exchange will be able to import, albeit at much higher prices.

In order to control imports, the Government issued a revised list of banned imports. Agricultural commodities included were wheat and products, rice and products, corn and products, vegetable oil, live poultry, vegetables, fruit, and eggs. This action confirmed the wheat import ban, which had been discussed for several months. Wheat imports will continue until existing letters of credit are used. *[Margaret Missiaen (202) 786-1680]*

U.S. Wheat Shipments to Jordan Rise

U.S. wheat shipments to Jordan rose to 359,374 tons in fiscal 1986 from 84,347 tons last year. Sales of wheat flour increased from 248 to 3,897 tons. Total U.S. agricultural exports to Jordan were $72 million, up sharply from last year's $41 million.

For the 1986 crop, Jordan's cumulative rainfall was below average, resulting in a disastrous wheat harvest. At the same time, wheat consumption approached 500,000 tons. As a result, wheat import requirements for fiscal 1986 exceeded 450,000 tons.

In the first half of the 1980's, Jordan's combined field-crop output--including wheat, barley, and corn--averaged 99,000 tons and covered only 12 percent of the country's consumption needs. During that period, wheat output averaged 61,000 tons, a self-sufficiency ratio of 12 percent.

In April 1986, the United States announced a $90-million CCC program for the purchase of wheat, rice, feed grains, oilcake, and meal. This program, along with the EEP, boosted U.S. farm exports to Jordan and increased the U.S. share of Jordan's wheat market to 81 percent. Australia's share decreased to an estimated 15 percent, and that of the EC to 4 percent. *[Fawzi A. Taha (202) 786-1680]*

U.S. and EC Compete for Egyptian Market

Competition between the EC and the United States for Egypt's food imports has been intense during the last 6 years. The EC pulled into the lead with sales of $981 million in 1984, compared with $909 million for the United States. The United States was again ahead in 1985, despite a 2-percent decline to $891 million, as EC sales declined 15 percent to $840 million.

The EC is expected to win the 1986 race with the added help of Spain, and because appreciation of European currencies will boost their dollar value to an estimated $1 billion. A modest rebound for U.S. sales is expected with greater exports of wheat, flour, and frozen poultry through the EEP. When the final 1986 tally is in, the United States may be only about 5 percent behind the EC.

Competition has been most intense for wheat, flour, and livestock products. Egypt's wheat and flour imports averaged 7 million tons, wheat equivalent, in 1984-86. The U.S. share is estimated at 40 percent in 1986, up from 34 in 1985. The EC's share is 20 percent. In livestock products, the EC is far ahead of the United States. The EC provided about 75 percent of Egypt's dairy imports during 1980-86. While gaining over 90 percent of the Egyptian market for imported beef in 1985 and 1986, EC sales of frozen poultry declined because of competition from Brazil and the United States.

In 1987, EC sales to Egypt are estimated at $1.1 billion, with more concessional financing and stronger ties due to aid programs. Gains are expected, especially in high value items like dairy products, beef, and margarine. U.S. exports may rise slightly, with further gains for bulk items, including wheat, flour, corn, and soybean meal. *[John B. Parker (202) 786-1680]*

HYBRIDS INCREASE SORGHUM PRODUCTION IN DEVELOPING COUNTRIES

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Abstract: Since the early 1970's, sorghum production has been increasing rapidly in the developing countries, accounting for one-fourth of the total increase of coarse grain there. The increased sorghum output is primarily due to the rapidly expanding area planted to high-yielding, hybrid varieties in Latin America. Hybrids are also increasing yields in Asia, but production has been static because area is declining. The use of hybrids in Africa is negligible, and average yields have been trending down for 25 years.

Keywords: Sorghum, hybrid sorghum, green revolution, developing countries, coarse grains.

Sorghum represents only 4 percent of the world grain production of some 1.7 billion tons (1982-84), and an even smaller share of the grain trade. Yet it is of crucial importance in many parts of the world. It is the most important food grain in the Sahel and other arid and semi-arid areas of Africa, where living standards depend to a large extent on sorghum production. It is mostly a food grain in India, and a principal feed grain in Central and South America.

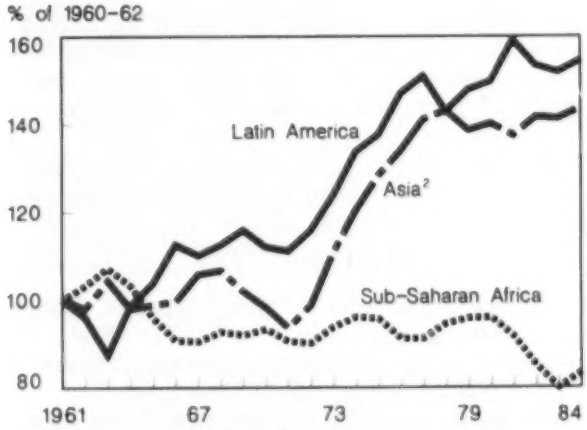
Sorghum in the Developing Countries

The developing countries produce about half of the world's sorghum, most of which is consumed in the country in which it is grown. Only two developing countries, Argentina and Mexico, consistently trade large volumes of sorghum. In 1983-85, Argentina had 86 percent of all developing-country exports of grain sorghum and was the principal U.S. competitor. Mexico had 43 percent of the developing countries' grain sorghum imports, and is a key U.S. market.

Sorghum Production Widespread

Grain sorghum production in the developing countries is almost equally divided among three regions: Asia, Sub-Saharan Africa, and Latin America. (The People's Republic of China is not included in this discussion.) Most of Asia's production is in India, the world's second largest sorghum producer after the United States. Argentina and Mexico produce most of the Latin American sorghum. Sorghum is widely grown in the semi-arid areas of Sub-Saharan Africa. Nigeria is the major producer, followed by Sudan and Ethiopia. Little sorghum is grown in North Africa and the Middle East.

Hybrids Raise Yields in Latin America and Asia[1]

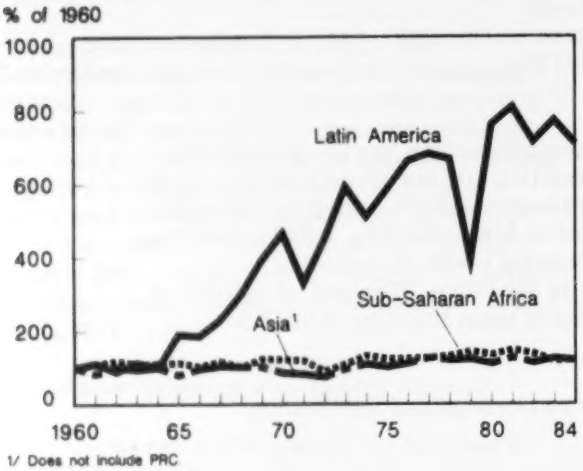


1/ Three-year averages centering on dates shown.
2/ Does not include PRC.

Latin American yields are high, and along with area, are increasing. Yields in India are rising because of hybrids, but area is declining. In Sub-Saharan Africa, expanding area is offset by declining yields. See Roth and Abbott (9)* for country-level production and trade data for the world.

* Numbers in parentheses refer to literature cited at the end of this article.

Sorghum Production Increases Rapidly in Latin America



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Sorghum Used as Food

Most of the sorghum grown in the LDC's of Africa and Asia is consumed as food by low income, rural people. The stalks, which may reach 15 feet, and leaves of the traditional varieties are used for feed, construction material, and fuel. In Asia, about 85 percent of the sorghum is used as food as is 95 percent in Africa. In contrast, almost 95 percent of the sorghum use in Latin America is as feed.

Sorghum is used for many types of food in Asia, Africa, and Latin America (8). For example: Indian roti is an unleavened bread. In Central America, the tortilla is an unleavened bread usually prepared from corn; however, in some countries such as Honduras and Guatemala, sorghum or blends of sorghum and corn are used. In Sudan, kisra is a leavened bread made from sorghum. Ogi in Nigeria is a porridge made by soaking sorghum grain in water at room temperature for 2 to 4 days to soften the kernels and to ferment. The fermented sorghum is milled with large quantities of water and then filtered through a sieve. The filtrate is allowed to settle. The sediment is ogi. Sorghum is also widely used to make beer.

Unlike the other major cereals, underneath the hull of most traditional sorghums is a layer called testa that contains high levels of tannin. Tannins are distasteful to weaver birds, the most destructive sorghum pest in Africa. Large colonies of these birds can quickly devastate a maturing crop. If there are alternative foods available, usually grass seeds, the birds will not bother sorghum with tannins. If these sorghums are prepared for consumption without first removing the testa layer, the tannin will combine with the proteins in mature grain, making it nutritionally unavailable to humans and monogastric livestock, such as poultry and swine. The tannins also reduce the incidence of molds if mature grain is not harvested immediately. Traditionally, hulls have been removed by hand pounding, taking up to 1 hour to process 2 kilograms of grain.

Analysis of income and consumption data in the developing countries suggests that the use of sorghum as food declines as income increases. However, because rising incomes generally stimulate a higher demand for livestock products, researchers find a positive relationship between income and the use of sorghum as a feedstuff (9).

Sorghum Suited for Semi-Arid Climates

Sorghum is suited for semi-arid climates because it is more tolerant of hot, dry weather than corn and has higher yields than millet, a crop even more tolerant of dry weather. Sorghum is best suited for the heavier soils of the semi-arid tropics. Millets are better suited for the light sandy soils. There will always be extensive areas of the rain-fed tropics where sorghum and millet will be the main cereal crops because they will give more consistent yields under semi-arid conditions.

Hybrid Adoption Slow in India

In a joint project of the Indian Agricultural Research Institute and the Rockefeller Foundation in the 1960's, semi-dwarf sorghum hybrids with yields 60 percent higher than traditional varieties were made using U.S. male sterile lines. When growing these hybrids, farmers typically shift from intercropping with traditional varieties to sole cropping and more intensive management, including fertilization, to realize the higher yield potential. Because of the increased risk when using additional inputs, the use of hybrids has been limited to the sorghum growing areas with more dependable rainfall or that can be irrigated. These hybrids now occupy one-third of total sorghum area, raising average yields in the country.

Sorghum hybrids and traditional varieties are readily differentiated in the market and are priced accordingly. The grain from hybrids is priced lower than traditional sorghums because of its poorer quality for roti making. And, unlike the traditional varieties, the stalk of semi-dwarf hybrid varieties is considered to lose its feed value after drying; only negligible quantities can be sold in the local markets.

Important factors underlying the decline in sorghum area in India include a consumer preference for wheat and rice, little demand for sorghum grain for feed, and a lack of government promotion through price supports, extension, etc. Sorghum area also declined due to the green revolution for wheat. When farmers in the dryland areas invest in irrigation facilities, they often switch to the more profitable high-yielding, semi-dwarf wheat (7).

Research Growing in Africa

The American and Indian hybrids cannot be grown in Africa because they are not resistant to local diseases and pests. The American hybrids were developed for livestock feed, not human tastes. Improved varieties developed in Africa have not replaced traditional varieties because of difficulties with germination and seedling establishment, grain quality, and not fitting the intercropping practices of subsistence farmers. In addition, the new, high-yielding hybrid sorghums are semi-dwarf (up to 6 feet in height) and thus, the stems and leaves are not nearly as useful for feed and building material as traditional varieties (1).

The French began research in West Africa in 1931 to develop suitable high-yielding sorghums, but the failure to achieve any noticeable improvement in yields in over 40 years partially explains why Sahelian countries asked the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) to set up a sorghum and millet research program in the Sahel in the mid-1970's (2). The U.S. Agency for International Development's (USAID) Collaborative Research Support Program on Sorghum and Pearl Millet (INTSORMIL) is also contributing to the effort. Researchers are now making progress. Recently, for example, a promising new hybrid sorghum was released in Sudan after a 12-year research program in which 5,000 varieties were tested. This new hybrid, Hageen Dura-1, has produced average yields 52 percent higher than local varieties over four crop seasons at an experiment station (3). In Africa, as in India, the hybridization of sorghum has been carried out using male sterile lines from the United States.

Development of high-yielding hybrids, however, will not entirely solve the problem of how to intensify sorghum production in Africa. Yields of many varieties are presently below their potential because of various pests and diseases. For example, sorghum yields can be reduced as much as 80 percent by the parasitic witchweed, which becomes a severe pest if sorghum is grown without rotation. Extensive areas in Africa have been rendered unfit for sorghum cultivation, with the buildup of witchweed under continuous sorghum cultivation (10). The parasite's seeds remain viable in the soil for more than 10 years. It is almost impossible to control mechanically and few sorghum varieties have resistance.

Even in those areas where sorghum is better suited, corn may still be grown because it is a preferred food and because it is better protected against grain-eating birds. Corn is also more convenient and easier than sorghum to prepare for consumption. Thus, a cash market developed during colonial times for corn while sorghum remained in the informal, subsistence economy.

To move sorghum out of this subsistence economy several things are needed, including improved processing. Before grinding into flour, the sorghum is hulled manually, using a pounder and a little water to make it easier to remove the seed coat. Even though the flour is left to dry after grinding, it will still contain 30 percent water. Because flour prepared in this way turns rancid very quickly, it must be used within 2 days. Researchers are developing mechanical dry dehullers. The flour made after dry hulling can be stored for months.

These developments could make sorghum flour a more marketable product in the rapidly growing urban areas which have become dependent on imported wheat and rice. Dry mills, designed specifically for dehulling and milling sorghum, can decrease the tedious hand processing time, the flour moisture

content, and the amount of hull in sorghum flour—all essential for development of the cash markets that can provide the incentives for farmers to intensify rain-fed sorghum production.

Feed Sorghum Expanding In Latin America

Following the development in the United States of high-yielding hybrid feed sorghums that could be machine harvested, strong interest developed in Latin America. Starting in the 1960's, U.S. seed firms began marketing hybrid seed in Latin America, where it grew very well, and area expanded very rapidly.

U.S. Research Beneficial

Sorghum has greatly changed since it was introduced in the United States in the 1850's. The tall, late-maturing daylength-sensitive varieties from Africa were transformed into semi-dwarf, early-maturing varieties that are not sensitive to daylength. Many of these varieties produce grain with no tannin, and are referred to as yellow sorghums. The U.S. sorghums with tannin are called brown sorghums. The U.S. grain sorghums are no longer dual purpose plants supplying both grain and forage, as in Africa. (The United States has also developed specialized forage varieties.) Shortening the plants permitted mechanized harvesting. The daylength insensitivity increased the crop's adaptability.

Because the feed value of yellow sorghums is almost equal to corn, they receive a higher price than the brown sorghums. Brown sorghum grain causes a 10- to 30-percent reduction in feed efficiency, compared with yellow sorghum (5). There is a dock of about $1 per hundredweight for brown sorghums, so there is very little grown in the United States. The brown sorghums that are grown are not mixed with the yellow sorghums that the United States exports. Other exporting countries including Argentina and Sudan, however, do not keep their sorghums separated, which causes potential U.S. customers to think that all sorghums are nutritionally inferior.

In the 1950's, commercial high-yielding hybrid sorghums were developed by publicly supported breeding programs. Because sorghum is a self-pollinating crop, producing hybrid sorghum on a commercial scale was not possible until the discovery of cytoplasmic male sterility (CMS) in the early 1950's. Self-pollination can be prevented by CMS, a factor inherited through the cytoplasm that prevents viable pollen from being produced.

U.S. Firms Market Hybrids

Yield trials, largely encouraged or conducted by U.S. companies, in Mexico, Argentina, Australia, and South Africa showed that U.S.-bred feed sorghum hybrids performed well, while in contrast, U.S. hybrid corn was not so directly transferable. The U.S. seed companies quickly established themselves in Argentina and Mexico, countries with large, semi-arid areas.

In Mexico, sorghum was introduced in the irrigated cotton areas of the Northwest. The Mexican farmers were soon obtaining yields equal to or higher than in the United States and production increased rapidly. Sorghum was a more efficient user of irrigation water than cotton or rice. Because sorghum uses the same planting and harvesting machinery as wheat, a wheat-sorghum rotation was established (6). Sorghums supply Mexico's rapidly growing poultry and swine production.

Mexico's sorghum imports have become the largest in the developing world even though production has increased rapidly. Had it not been for the development of sorghum production, either massive feed grain imports would have been necessary, or the poultry business could not have grown so fast.

In Argentina, sorghum varieties suitable for combine harvesting were already being planted in some of the drier areas. With the introduction of hybrids (mostly produced by local licencees of U.S. seed companies) production expanded as both planted area and yields increased (6). In Argentina, sorghum is primarily grown for export. Importantly, most of the Argentine sorghum has tannins, making it less competitive in international markets with corn and with the yellow sorghums exported from the United States. Recently, sorghum area has declined because of competition from sunflowers, which give a higher income (4).

Food Use Small in Latin America

In recent years, there has been increased interest in growing sorghums suitable for direct human consumption. In areas with considerable risk of drought, an early-maturing corn crop is intercropped with a traditional, long-season sorghum (12). In good years, corn is used for the family and sorghum for poultry and livestock, but in dry years, when the corn crop fails, sorghum is used in the tortillas. The area in traditional sorghums is small compared to feed sorghums. However, because sorghum is better suited than corn to some of the drier areas in Latin America, plant breeders are now breeding higher-yielding food sorghum varieties. These provide new possibilities for supplementing cereal production for human consumption in areas where corn yields are poor due to uncertain rainfall.

Limited Impact on U.S. Exports

U.S. research has meant a green revolution for sorghum yields in parts of the developing world. This is most evident in Latin America, where U.S.-developed hybrids were used directly, and in India, where high-yielding hybrid varieties were developed from U.S. CMS lines. Although a sorghum green revolution has not occurred in Africa, development of suitable hybrids is gaining momentum and research on mechanized milling is progressing. The impact of hybrid varieties on sorghum production in the developing world has been much less than the green revolution for wheat.

Except for Argentina, which will continue to be a low-cost sorghum exporter, this green revolution has not adversely affected the U.S. export market. Sorghum in Africa and Asia is mostly consumed as food by low-income, rural people. U.S. feed sorghums are not suitable for their needs. Production has increased in Mexico, but not nearly as rapidly as the feed requirements for the livestock sector. Mexico is already a key market for U.S. sorghums with further developments from the private sector. Presently, however, economic stagnation and massive debts limit Mexico's imports.

Mexico is one of the upper-middle income countries, which has been the driving force in shifting the developing world from net exporters of coarse grains to net importers (13). Consumers in these upper-middle income countries are including more meat and poultry products in their diet. This demand, arising from higher incomes, is increasing the requirements for feedstuffs much faster than domestic production. Shortfalls deriving from this imbalance are creating strong, growing markets for coarse grains such as sorghum.

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